TOSHIBA

SERVICE MANUAL

LCD Color Television

37WL68P

Ver. 1

This model is classified as a green product (*1), as indicated by the underlined serial number. This Service Manual describes replacement parts for the green product. When repairing this green product, use the part(s) described in this manual and lead-free solder (*2).
For (*1) and (*2), refer to **GREEN PRODUCT PROCUREMENT** and **LEAD-FREE SOLDER**.

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GREEN PRODUCT PROCUREMENT

The EC is actively promoting the WEEE & RoHS Directives that define standards for recycling and reuse of Waste Electrical and Electronic Equipment and for the Restriction of the use of certain Hazardous Substances. From July 1, 2006, the RoHS Directive will prohibit any marketing of new products containing the restricted substances.

Increasing attention is given to issues related to the global environmental. Toshiba Corporation recognizes environmental protection as a key management tasks, and is doing its utmost to enhance and improve the quality and scope of its environmental activities. In line with this, Toshiba proactively promotes Green Procurement, and seeks to purchase and use products, parts and materials that have low environmental impacts.

Green procurement of parts is not only confined to manufacture. The same green parts used in manufacture must also be used as replacement parts.

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LEAD-FREE SOLDER

This product is manufactured using lead-free solder as a part of a movement within the consumer products industry at large to be environmentally responsible. Lead-free solder must be used in the servicing and repair of this product.

WARNING: This product is manufactured using lead free solder.
DO NOT USE LEAD BASED SOLDER TO REPAIR THIS PRODUCT!

The melting temperature of lead-free solder is higher than that of leaded solder by 86ºF to 104ºF (30ºC to 40ºC). Use of a soldering iron designed for lead-based solders to repair product made with lead-free solder may result in damage to the component and or PCB being soldered. Great care should be made to ensure high-quality soldering when servicing this product especially when soldering large components, through-hole pins, and on PCBs as the level of heat required to melt lead-free solder is high.

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SAFETY INSTRUCTION

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" INSTRUCTIONS BELOW.

Safety Precaution

WARNING: SERVICING SHOULD NOT BE ATTEMPTED BY ANYONE UNFAMILIAR WITH THE NECESSARY PRECAUTIONS ON THIS RECEIVER. THE FOLLOWING ARE THE NECESSARY PRECAUTIONS TO BE OBSERVED BEFORE SERVICING THIS CHASSIS.

1. An isolation transformer should be connected in the power line between the receiver and the AC line before any service is performed on the receiver.

2. Always disconnect the power plug before any disassembling of the product. It may result in electrical shock.

3. When replacing a chassis in the cabinet, always be certain that all the protective devices are put back in place, such as nonmetallic control knobs, insulating covers, shields, isolation resistor-capacitor network, etc.

4. Always keep tools, components of the product, etc away from the children, These items may cause injury to children.

5. Depending on the model, use an isolation transformer or wear suitable gloves when servicing with the power on, and disconnect the power plug to avoid electrical shock when replacing parts. In some cases, alternating current is also impressed in the chassis, so electrical shock is possible if the chassis is contacted with the power on.

6. Always use the replacement parts specified for the particular model when making repairs. The parts used in products require special safety characteristics such as

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inflammability, voltage resistance, etc. therefore, use only replacement parts that have these same characteristics. Use only the specified parts when the ⚠ mark is indicated in the circuit diagram or parts list.

7. Parts mounting and routing dressing of wirings should be the same as that used originally. For safety purposes, insulating materials such as isolation tube or tape are sometimes used and printed circuit boards are sometimes mounted floating. Also make sure that wirings is routed and clamped to avoid parts that generate heat and which use high voltage. Always follow the manufactured wiring routes / dressings.

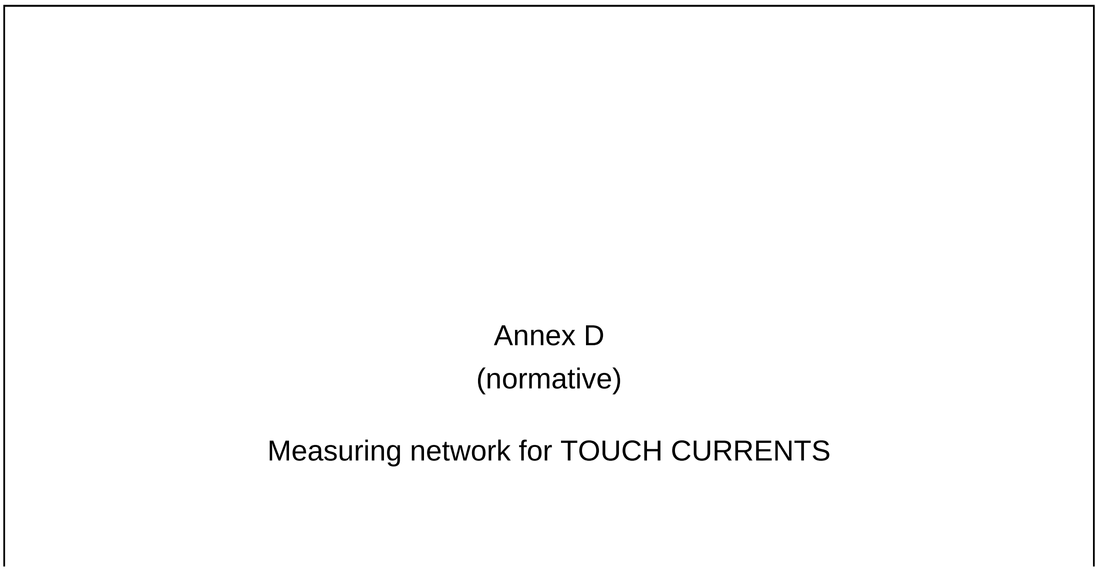
8. Always ensure that all internal wirings are in accordance before re-assembling the external casing after a repairing completed. Do not allow internal wiring to be pinched by cabinets, panels, etc. Any error in reassembly or wiring can result in electrical leakage, flame, etc., and may be hazardous.

9. NEVER remodel the product in any way. Remodeling can result in improper operation, malfunction, or electrical leakage and flame, which may be hazardous.

10. Touch current check. (After completing the work, measure touch current to prevent an electric shock.)

    - Plug the AC cord directly into the AC outlet. Do NOT use an isolation transformer for this check.

    - Connect a measuring network for touch currents between each exposed metallic part on the set and a good earth ground such as a water pipe.



Annex D
(normative)

Measuring network for TOUCH CURRENTS

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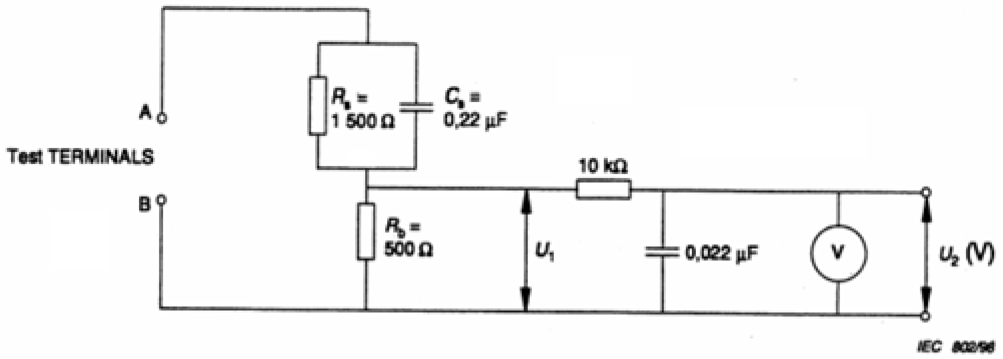

Resistance values in orms (Ω).

V: Voltmeter or oscilloscope
(r.m.s. or peak reading)

Input resistance : ≧ 1 MΩ
Input capacitance : ≦ 200 pF
Frequency range : 15 Hz to 1 MHz and d.c. respectively

Note: Appropriate measures should be taken to obtain the correct value in case of non sinusoidal waveforms.

The measuring instrument is calibrated by comparing the frequency factor of U_2 with the solid line in figure F.2 of IEC 60990 at various frequencies. A calibration curve is constructed showing the deviation of U_2 from the ideal curve as a function of frequency.

TOUCH CURRENT = U_2/500 (peak value).

- The potential at any point (TOUCH CURRENT) expressed as voltage U_1 and U_2 does not exceed the following value:

The part or contact of a TERMINAL is not HAZARDOUS LIVE if:

a) The open-circuit voltage should not exceed 35 V (peak) a.c. or 60 V d.c. or, if a) is not met.
b) The measurement of the TOUCH CURRENT shall be carried out in accordance with IEC 60990, with the measuring network described in **Annex D** of this standard.

The TOUCH CURRENT expressed as voltages U_1 and U_2, does not exceed the following values:
- for a.c. : U_1 = 35 V (peak) and U_2 = 0.35 V (peak);
- for d.c. : U_1 = 1.0 V

Note: The limit values of U_2 = 0.35 V (peak) for a.c. and U_1 = 1.0 V for d.c. correspond to the values 0.7 mA (peak) a.c. and 2.0 mA d.c.

Product Safety Notice

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the international hazard symbols on the schematic diagram and the parts list.
Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create electrical shock, fire, or other hazards.

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SAFETY INSTRUCTION

Handling the LCD Module

Safety Precaution

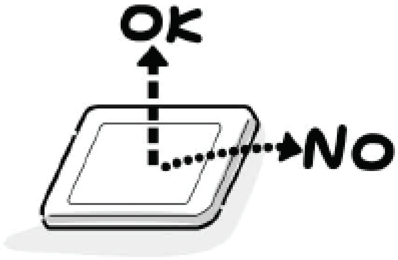
In the event that the screen is damaged or the liquid crystal (fluid) leaks, do not breathe in or drink this fluid.
Also, never touch this fluid. Such actions could cause toxicity or skin irritation. If this fluid should enter the mouth, rinse the mouth thoroughly with water. If the fluid should contact the skin or clothing, wipe off with alcohol, etc., and rinse thoroughly with water. If the fluid should enter the eyes, immediately rinse the eyes thoroughly with running water.

Precautions for Handling the LCD Module

CAUTION: The metal edges of the LCD module are sharp, handle it with care.

The LCD module can easily be damaged during disassembly or reassembly; therefore, always observe the following precautions when handling the module.

1. When attaching the LCD module to the LCD cover, position it appropriately and fasten at the position where the display can be viewed most conveniently.



2. Carefully align the holes at all four corners of the LCD module with the corresponding holes in the LCD cover and fasten with screws. Do not strongly push on the module because any impact can adversely affect the performance. Also use caution when handling the polarized screen because it can easily be damaged.

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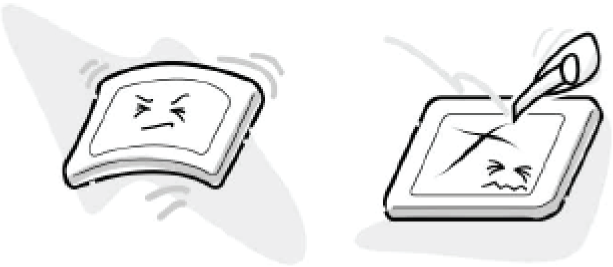
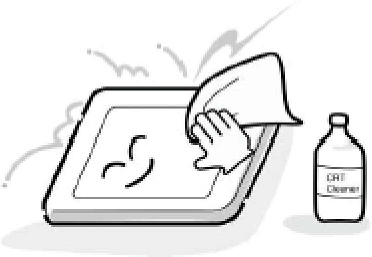
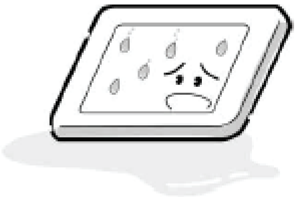


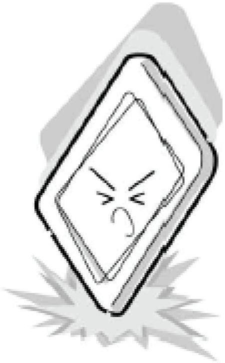
3. If the panel surface becomes soiled, wipe with cotton or a soft cloth. If this does not remove the soiling, breathe on the surface and then wipe again.
   If the panel surface is extremely solied, use a CRT cleaner as a cleaner. Wipe off the panel surface by drop the cleaner on the cloth. Do not drop the cleaner on the panel. Pay attention not to scratch the panel surface.



4. Leaving water or other fluids on the panel screen for an extended period of time can result in discoloration or stripes. Immediately remove any type of fluid from the screen.



5. Glass is used in the panel, so do not drop or strike with hard objects. Such actions can damage the panel.



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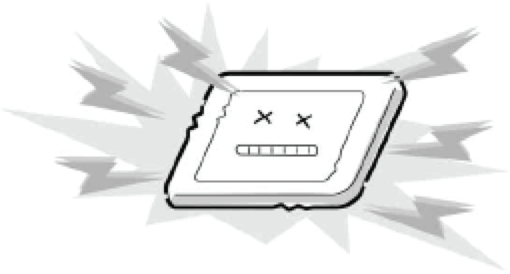
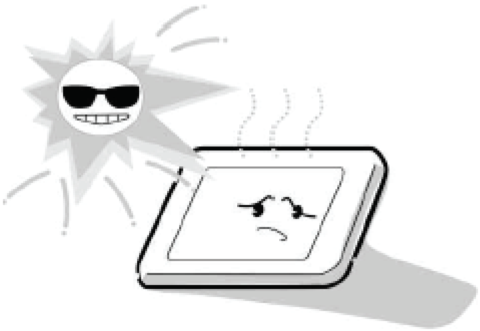
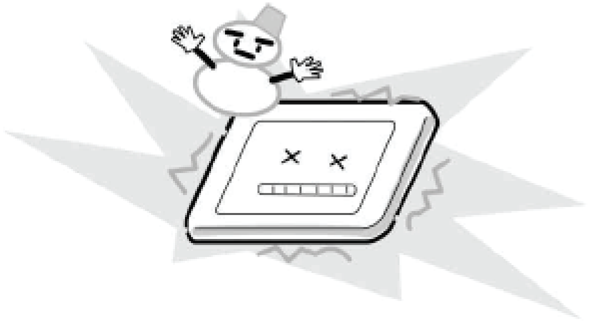
6. CMOS-LSI circuitry is used in the LCD module, so avoid damage due to static electricity. When handling the module, use a wrist ground or anchor ground.

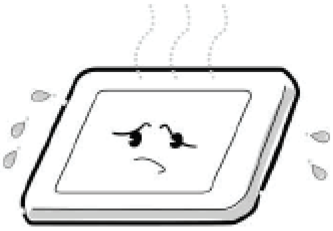


7. Do not expose the LCD module to direct sunlight or strong ultraviolet rays for an extended period of time.

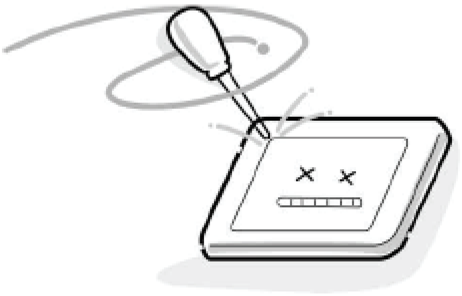


8. Do not store the LCD module below the temperature conditions described in the specifications. Failure to do so could result in freezing of the liquid crystal due to cold air or loss of resilience or other damage.

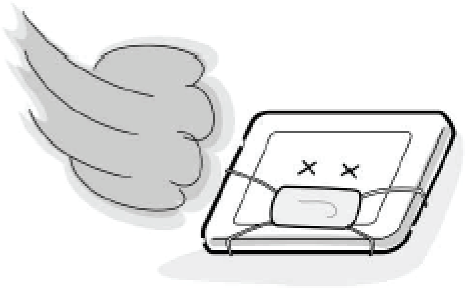


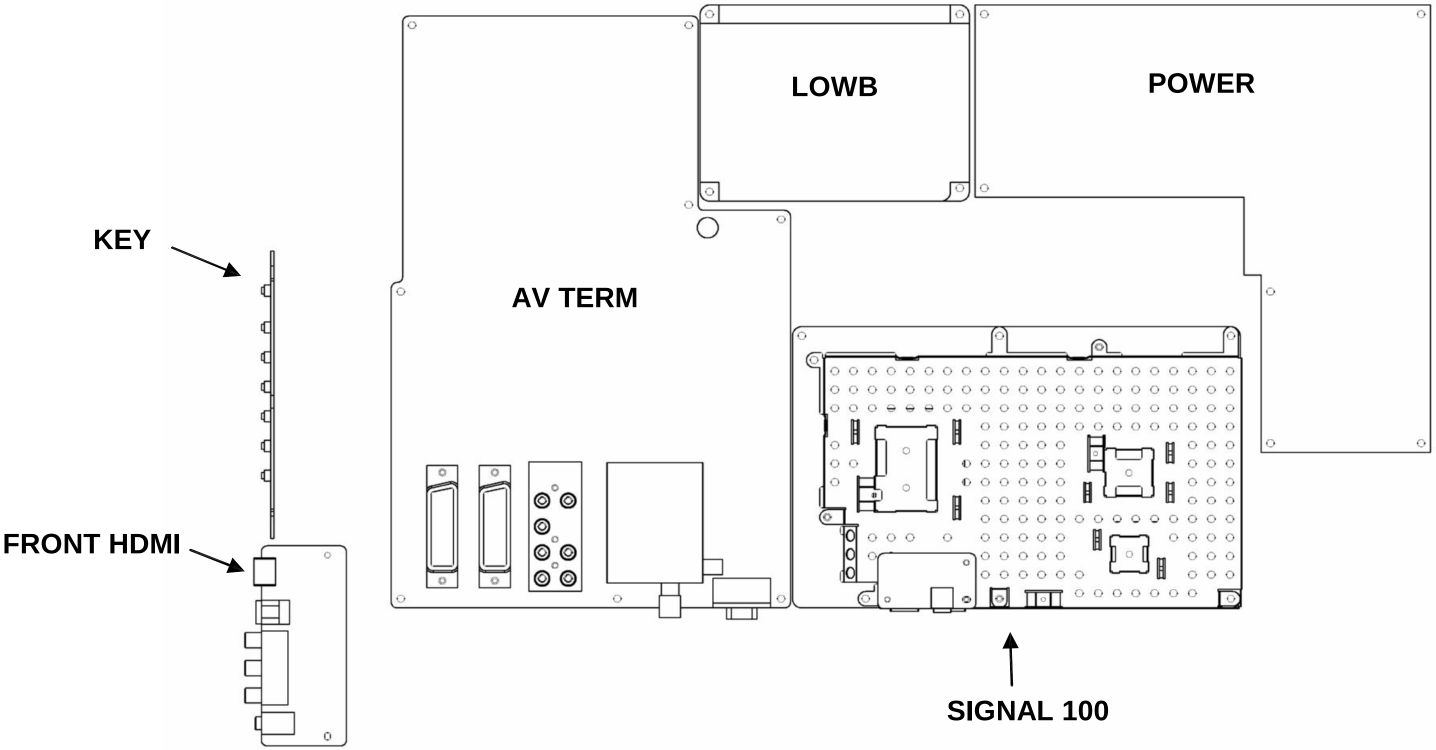


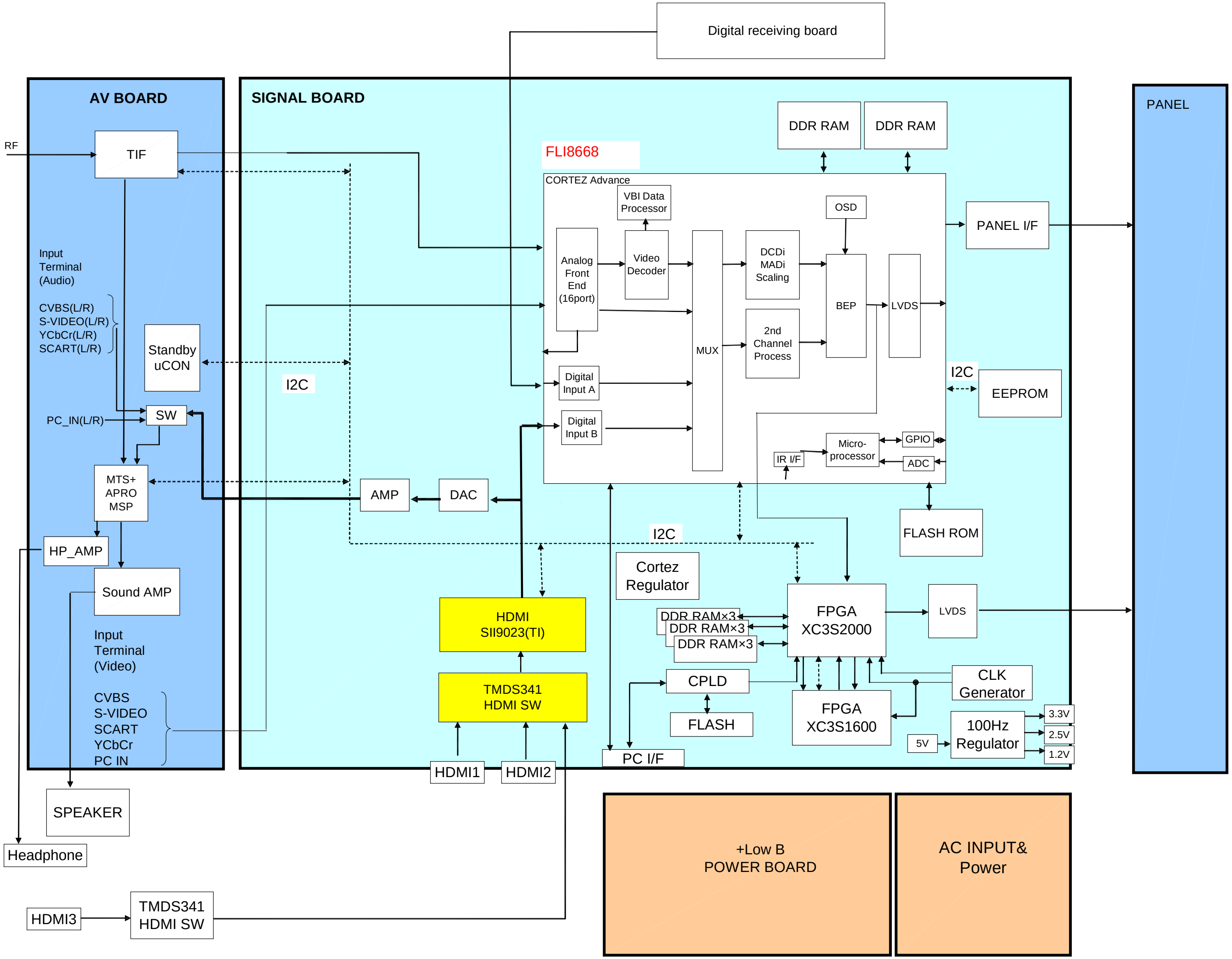
9. Do not disassemble the LCD module. Such actions could result in improper operation.



10. When transporting the LCD module, do not use packing containing epoxy resin (amine) or silicon resin (alcohol or oxim). The gas generated by these materials can cause loss of polarity.




KEY
FRONT HDMI
AV TERM
LOWB
POWER
SIGNAL 100


Digital receiving board
AV BOARD
RF
TIF
Input
Terminal
(Audio)
CVBS(L/R)
S-VIDEO(L/R)
YCbCr(L/R)
SCART(L/R)
Standby
uCON
PC_IN(L/R)
SW
MTS+
APRO
MSP
HP_AMP
Sound AMP
Input
Terminal
(Video)
CVBS
S-VIDEO
SCART
YCbCr
PC IN
SPEAKER
Headphone
HDMI3
TMDS341
HDMI SW
SIGNAL BOARD
I2C
AMP
DAC
FLI8668
CORTEZ Advance
VBI Data
Processor
Analog
Front
End
(16port)
Video
Decoder
MUX
DCDi
MADi
Scaling
2nd
Channel
Process
OSD
BEP
LVDS
Digital
Input A
Digital
Input B
IR I/F
Micro-
processor
GPIO
ADC
DDR RAM
DDR RAM
PANEL I/F
I2C
EEPROM
FLASH ROM
I2C
Cortez
Regulator
HDMI
SII9023(TI)
TMDS341
HDMI SW
HDMI1
HDMI2
DDR RAM×3
DDR RAM×3
DDR RAM×3
FPGA
XC3S2000
LVDS
CPLD
FLASH
FPGA
XC3S1600
CLK
Generator
5V
100Hz
Regulator
3.3V
2.5V
1.2V
PC I/F
PANEL
+Low B
POWER BOARD
AC INPUT&
Power

SCHEMATIC DIAGRAM

Precaution

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION" FOR DIRECT VIEW CTV ONLY, "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" OF THIS MANUAL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and

should be replaced only with types identical to those in the original circuit or specified in the parts list.

The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the SAFETY PRECAUTION and PRODUCT SAFETY NOTICE.

Do not degrade the safety of the receiver through improper servicing.

Note:

1. RESISTOR

   Resistance is shown in ohm [K=1,000, M=1,000,000]. All resistors are 1/6 W and 5 % tolerance carbon resistor, unless otherwise noted as the following marks.

   1/2R : Metal or Metal oxide of 1/2 watt
   1/2S : Carbon composition of 1/2 watt
   1RF : Fuse resistor of 1 watt
   10 W : Cement of 10 watt
   K : ±10 %
   G : ±2 %
   F : ±1 %

2. CAPACITOR

   Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in µF, and the values more than 1 in pF.

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All capacitors are ceramic 50 V, unless otherwise noted as the following marks.

+⊣⊢ = Electrolytic capacitor
Ⓜ⊣⊢ = Mylar capacitor

3. The parts indicated with "⚠" have special characteristics, and should be replaced with identical parts only.

4. Voltages read with DIGITAL MULTI-METER from point indicated to chassis ground, using a color bar signal with all controls at normal, line voltage at nominal AC volts.

5. Waveforms are taken receiving color bar signal with enough sensitivity.

6. Voltage reading shown are nominal values and may vary ±20 % except H.V.

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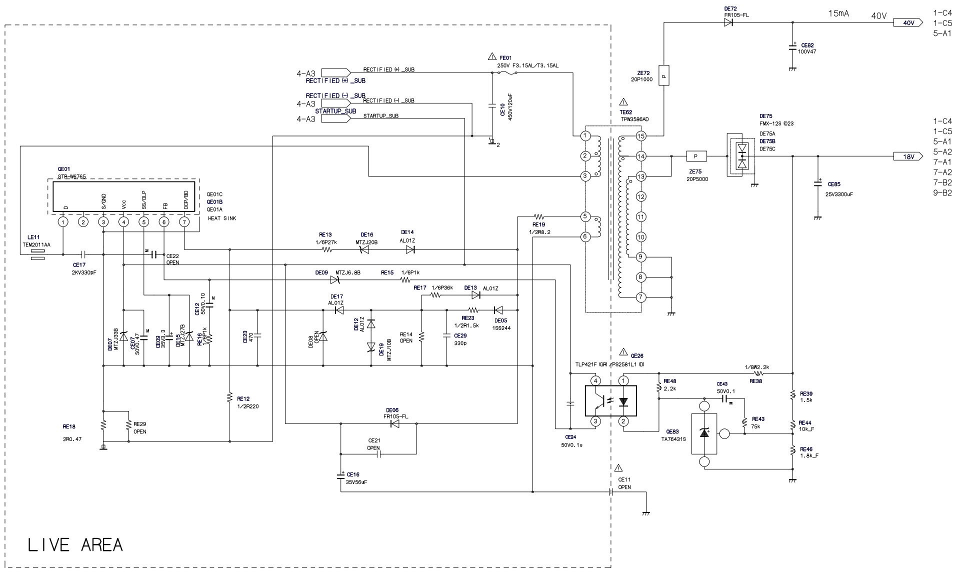
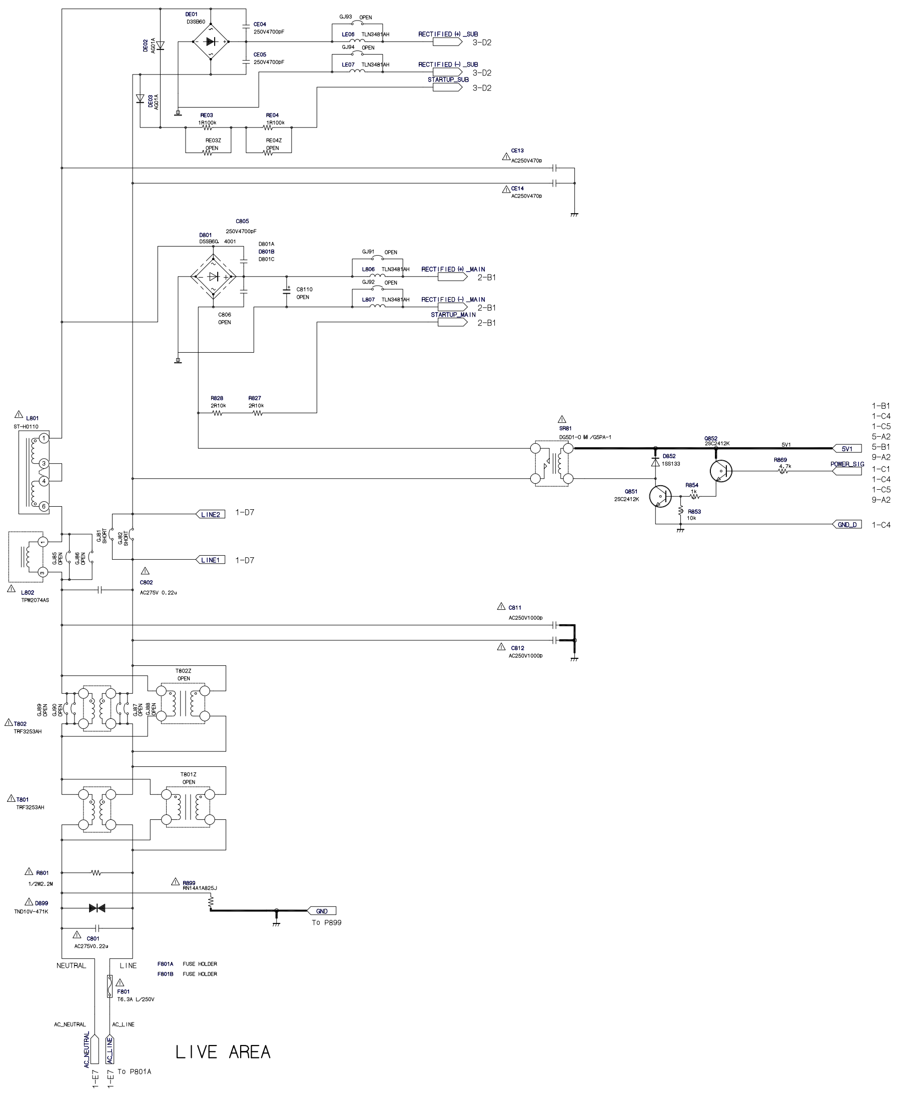
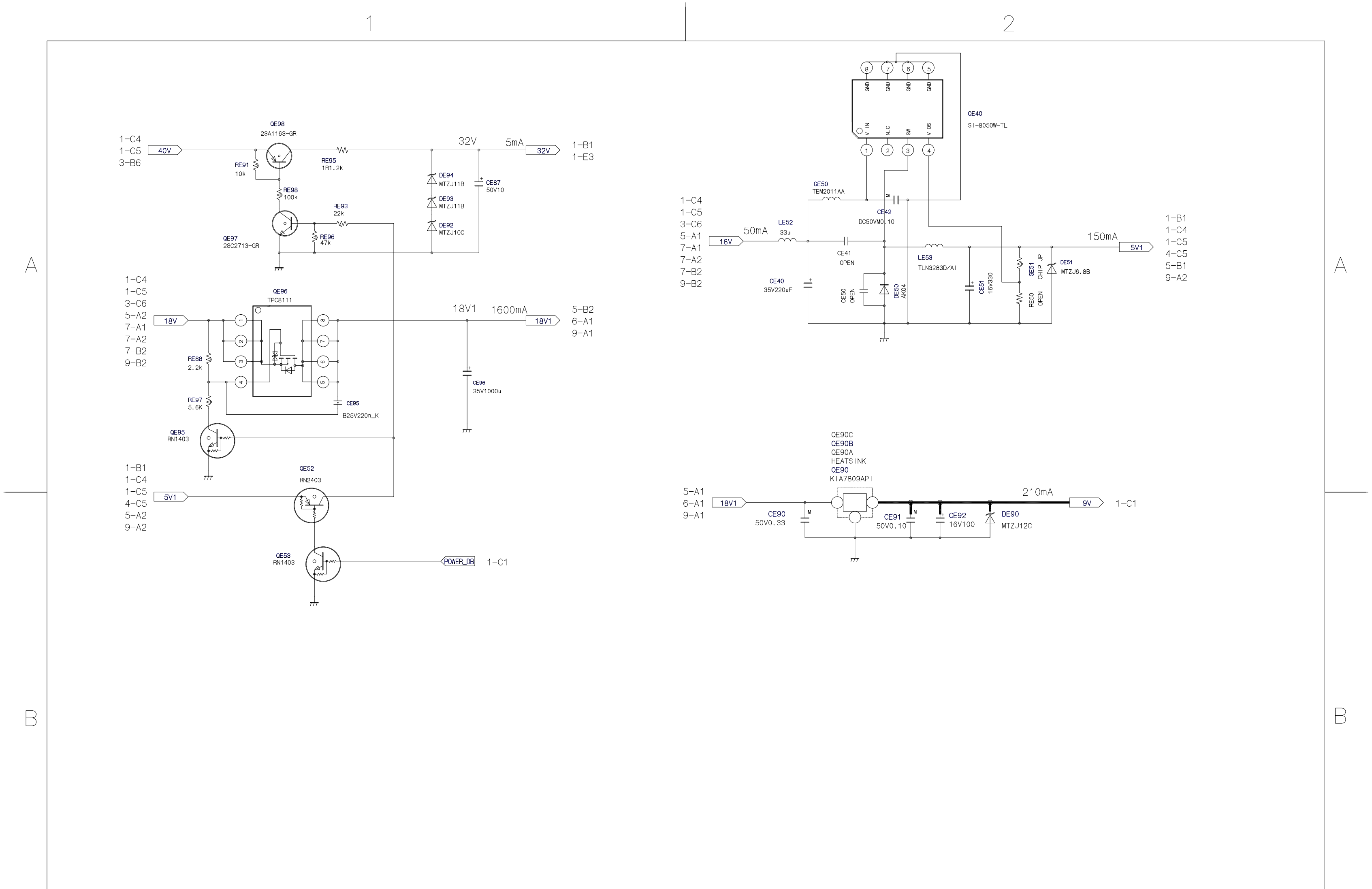

4-A3
RECTIFIED (+) _SUB
RECTIFIED (+) _SUB
RECTIFIED (-) _SUB
4-A3
RECTIFIED (-) _SUB
STARTUP_SUB
4-A3
STARTUP_SUB
FE01
250V F3.15AL/T3.15AL
CE10
450V120uF
QE01
STR-W6765
D
S/GND
Vcc
SS/OLP
FB
OCP/BD
QE01C
QE01B
QE01A
HEAT SINK
LE11
TEM2011AA
CE17
2KV330pF
CE22
OPEN
RE13
1/6P27k
DE16
MTZJ20B
DE14
AL01Z
DE09
MTZJ6.8B
RE15
1/6P1k
RE17
1/6P36k
DE13
AL01Z
DE17
AL01Z
RE23
1/2R1.5k
DE05
1SS244
DE07
MTZJ33B
CE07
50V0.47
CE09
35V3.3
DE15
MTZJ27B
RE16
1/6P1k
CE12
50V0.10
CE23
470
DE08
OPEN
DE12
AL01Z
DE19
MTZJ10B
RE14
OPEN
CE29
330p
RE12
1/2R220
RE18
2R0.47
RE29
OPEN
DE06
FR105-FL
CE21
OPEN
CE16
35V56uF
RE19
1/2R8.2
TE62
TPW3586AD
ZE72
20P1000
DE72
FR105-FL
15mA
40V
40V
1-C4
1-C5
5-A1
CE82
100V47
DE75
FMX-12S (023
DE75A
DE75B
DE75C
ZE75
20P5000
18V
1-C4
1-C5
5-A1
5-A2
7-A1
7-A2
7-B2
9-B2
CE85
25V3300uF
QE26
TLP421F (GR) /PS2581L1 (D)
CE24
50V0.1u
RE48
2.2k
CE43
50V0.1
1/8W2.2k
RE38
RE39
1.5k
RE43
75k
RE44
10k_F
RE46
1.8k_F
QE83
TA76431S
CE11
OPEN
LIVE AREA

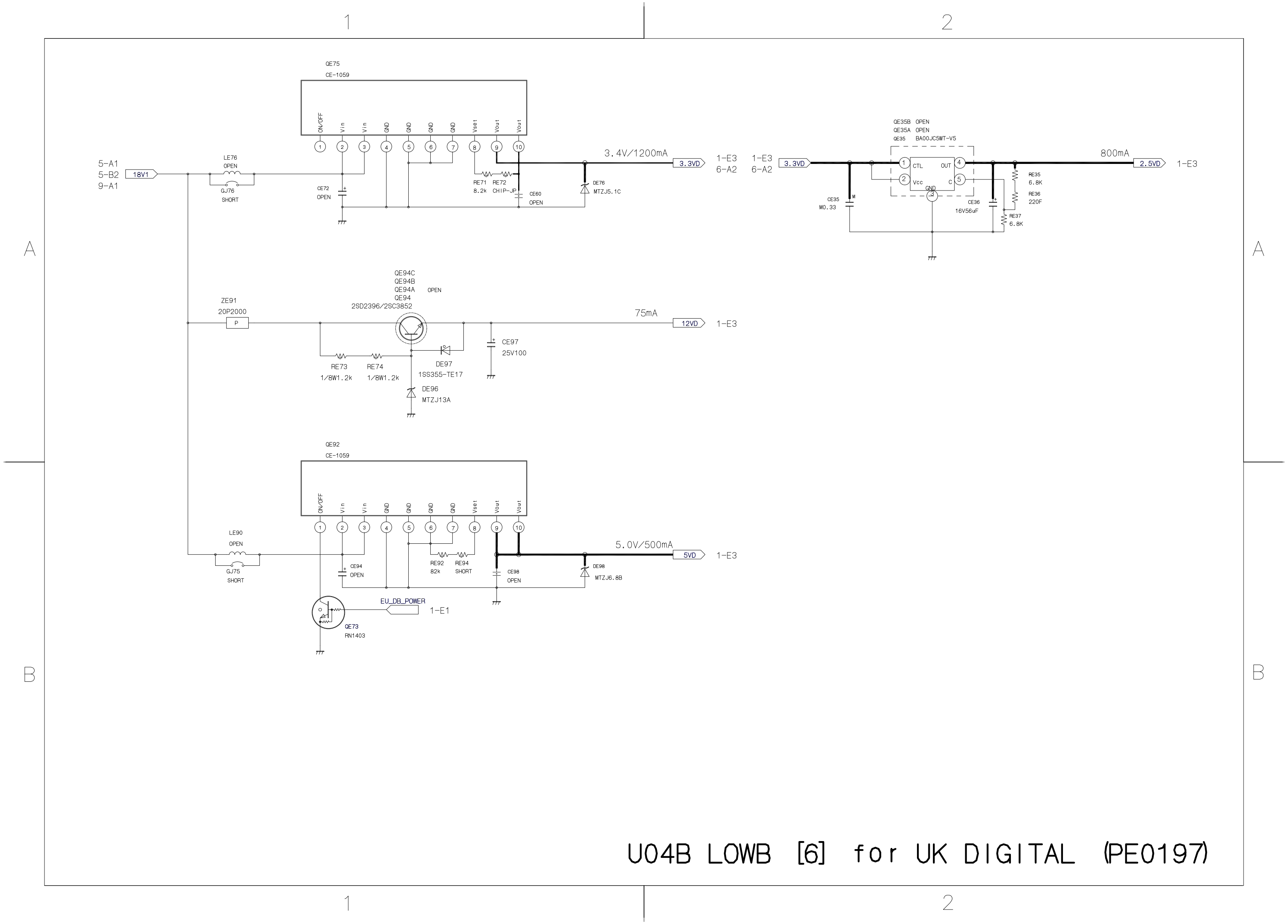
U04A POWER [3] SUB_POWER (PE0197)


DE01
D3SB60
CE04
250V4700pF
CE05
250V4700pF
DE02
AG01A
DE03
AG01A
GJ93 OPEN
LE06 TLN3481AH
GJ94 OPEN
LE07 TLN3481AH
RECTIFIED (+) _SUB
3-D2
RECTIFIED (-) _SUB
3-D2
STARTUP_SUB
3-D2
RE03
1R100k
RE04
1R100k
RE03Z
OPEN
RE04Z
OPEN
CE13
AC250V470p
CE14
AC250V470p
C805
250V4700pF
D801
D5SB60 4001
D801A
D801B
D801C
C806
OPEN
C8110
OPEN
GJ91 OPEN
L806 TLN3481AH
GJ92 OPEN
L807 TLN3481AH
RECTIFIED (+) _MAIN
2-B1
RECTIFIED (-) _MAIN
2-B1
STARTUP_MAIN
2-B1
R828
2R10k
R827
2R10k
L801
ST-H0110
SR81
DG5D1-O M /G5PA-1
Q852
2SC2412K
5V1
5V1
D852
1SS133
R869
4.7k
POWER_SIG
Q851
2SC2412K
R854
1k
R853
10k
GND_D
1-B1
1-C4
1-C5
5-A2
5-B1
9-A2
1-C1
1-C4
1-C5
9-A2
1-C4
LINE2
1-D7
LINE1
1-D7
GJ81 SHORT
GJ82 SHORT
L802
TPW2074AS
GJ85 OPEN
GJ86 OPEN
C802
AC275V 0.22u
C811
AC250V1000p
C812
AC250V1000p
T802Z
OPEN
GJ89 OPEN
GJ90 OPEN
GJ87 OPEN
GJ88 OPEN
T802
TRF3253AH
T801Z
OPEN
T801
TRF3253AH
R801
1/2W2.2M
R899
RN14A1A825J
GND
To P899
D899
TND10V-471K
C801
AC275V0.22u
NEUTRAL
LINE
F801A FUSE HOLDER
F801B FUSE HOLDER
F801
T6.3A L/250V
AC_NEUTRAL
AC_LINE
AC_NEUTRAL
AC_LINE
1-E7
1-E7
To P801A
LIVE AREA

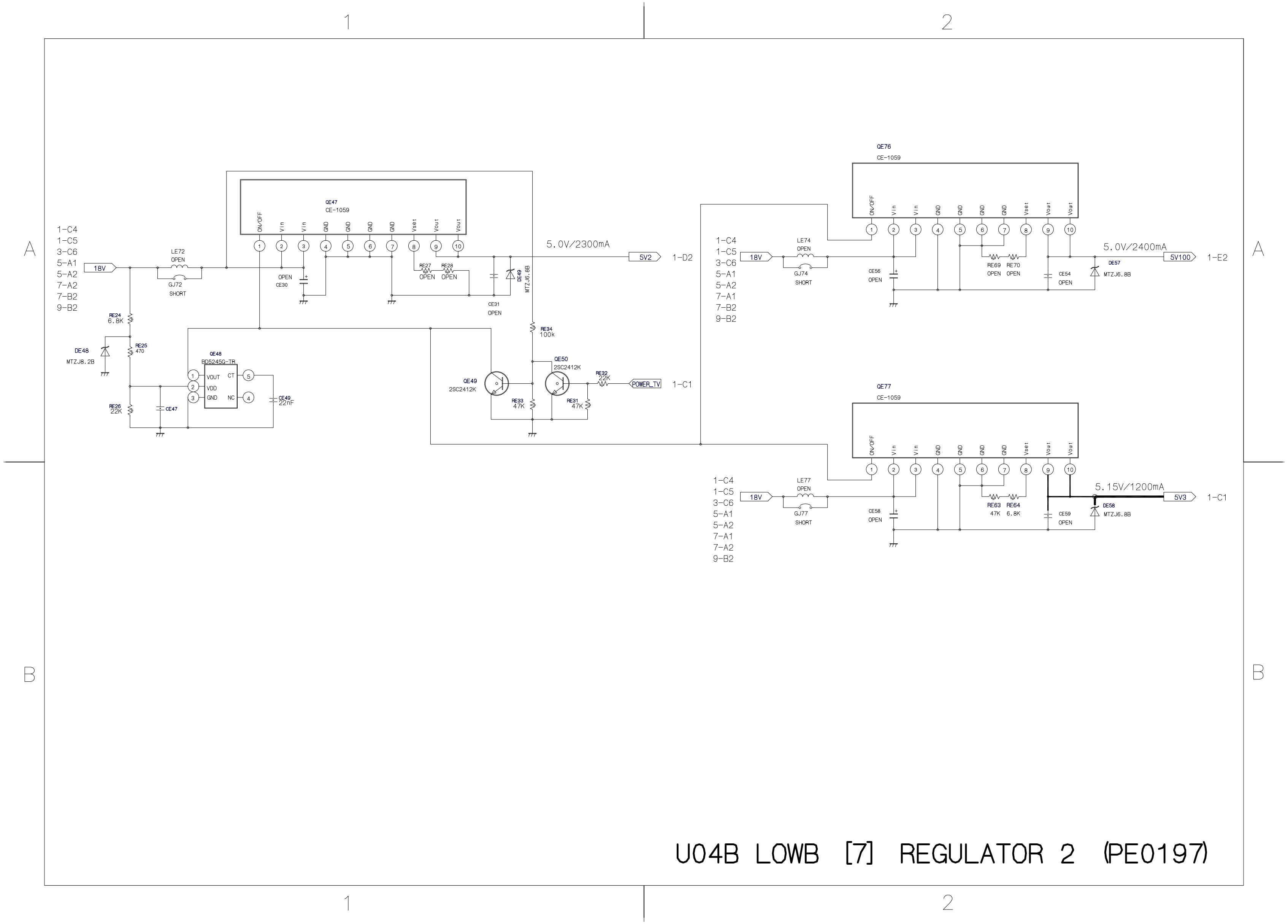
U04A POWER [4] AC-INPUT (PE0197)


1
2
A
B
1-C4
1-C5
3-B6
40V
QE98
2SA1163-GR
RE91
10k
RE95
1R1.2k
RE98
100k
RE93
22k
QE97
2SC2713-GR
RE96
47k
32V
5mA
32V
1-B1
1-E3
DE94
MTZJ11B
DE93
MTZJ11B
DE92
MTZJ10C
CE87
50V10
1-C4
1-C5
3-C6
5-A2
7-A1
7-A2
7-B2
9-B2
18V
QE96
TPC8111
RE88
2.2k
RE97
5.6K
CE95
B25V220n_K
18V1
1600mA
18V1
5-B2
6-A1
9-A1
CE96
35V1000u
QE95
RN1403
1-B1
1-C4
1-C5
4-C5
5-A2
9-A2
5V1
QE52
RN2403
QE53
RN1403
POWER_DB
1-C1
QE40
SI-8050W-TL
GND
GND
GND
GND
V IN
N.C
SW
V OS
1-C4
1-C5
3-C6
5-A1
7-A1
7-A2
7-B2
9-B2
18V
50mA
LE52
33u
GE50
TEM2011AA
CE42
DC50VM0.10
CE41
OPEN
CE40
35V220uF
CE50
OPEN
DE50
AK04
LE53
TLN3283D/AI
CE51
16V330
GE51
CHIP JP
RE50
OPEN
DE51
MTZJ6.8B
150mA
5V1
1-B1
1-C4
1-C5
4-C5
5-B1
9-A2
QE90C
QE90B
QE90A
HEATSINK
QE90
KIA7809API
5-A1
6-A1
9-A1
18V1
CE90
50V0.33
CE91
50V0.10
CE92
16V100
DE90
MTZJ12C
210mA
9V
1-C1
A
B
1
2

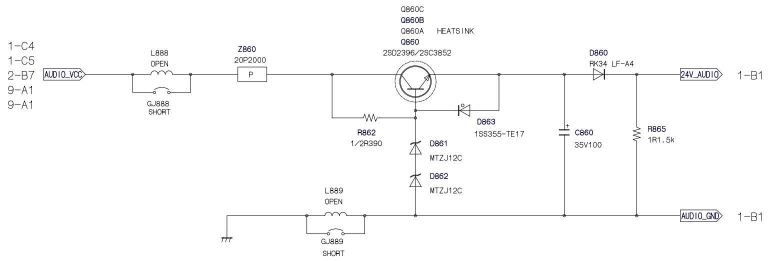
U04B LOWB [5] REGULATOR 1 (PE0197)

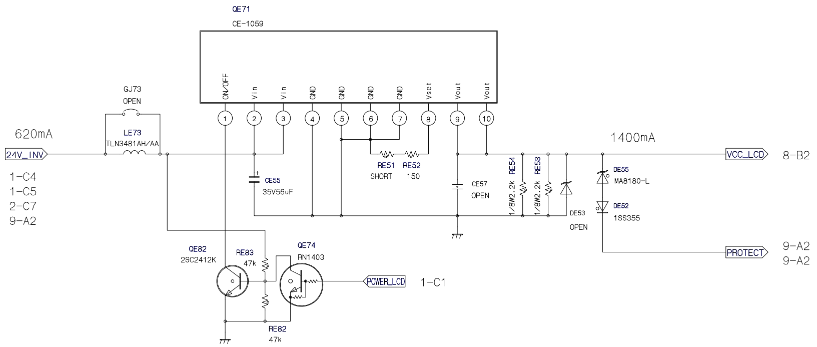

1
2
A
B
QE75
CE-1059
ON/OFF
Vin
Vin
GND
GND
GND
GND
Vset
Vout
Vout
1
2
3
4
5
6
7
8
9
10
5-A1
5-B2
9-A1
18V1
LE76
OPEN
GJ76
SHORT
CE72
OPEN
RE71
8.2k
RE72
CHIP-JP
CE60
OPEN
DE76
MTZJ5.1C
3.4V/1200mA
3.3VD
1-E3
6-A2
1-E3
6-A2
3.3VD
QE35B OPEN
QE35A OPEN
QE35 BA00JC5WT-V5
CTL
Vcc
GND
OUT
C
CE35
M0.33
M
CE36
16V56uF
RE35
6.8K
RE36
220F
RE37
6.8K
800mA
2.5VD
1-E3
QE94C
QE94B
QE94A
QE94
OPEN
2SD2396/2SC3852
ZE91
20P2000
P
RE73
1/8W1.2k
RE74
1/8W1.2k
DE97
1SS355-TE17
DE96
MTZJ13A
CE97
25V100
75mA
12VD
1-E3
QE92
CE-1059
LE90
OPEN
GJ75
SHORT
CE94
OPEN
RE92
82k
RE94
SHORT
CE98
OPEN
DE98
MTZJ6.8B
5.0V/500mA
5VD
1-E3
EU_DB_POWER
1-E1
QE73
RN1403

U04B LOWB [6] for UK DIGITAL (PE0197)


1
2
A
B
QE47
CE-1059
ON/OFF
Vin
Vin
GND
GND
GND
GND
Vset
Vout
Vout
1
2
3
4
5
6
7
8
9
10
5.0V/2300mA
5V2
1-D2
1-C4
1-C5
3-C6
5-A1
5-A2
7-A2
7-B2
9-B2
18V
LE72
OPEN
GJ72
SHORT
OPEN
CE30
RE27
OPEN
RE28
OPEN
CE31
OPEN
DE49
MTZJ6.8B
RE24
6.8K
RE25
470
DE48
MTZJ8.2B
RE26
22K
CE47
QE48
BD5245G-TR
VOUT
VDD
GND
CT
NC
CE49
22nF
RE34
100k
QE49
2SC2412K
QE50
2SC2412K
RE33
47K
RE31
47K
RE32
22K
POWER_TV
1-C1
QE76
CE-1059
1-C4
1-C5
3-C6
5-A1
5-A2
7-A1
7-B2
9-B2
18V
LE74
OPEN
GJ74
SHORT
CE56
OPEN
RE69
OPEN
RE70
OPEN
CE54
OPEN
DE57
MTZJ6.8B
5.0V/2400mA
5V100
1-E2
QE77
CE-1059
1-C4
1-C5
3-C6
5-A1
5-A2
7-A1
7-A2
9-B2
18V
LE77
OPEN
GJ77
SHORT
CE58
OPEN
RE63
47K
RE64
6.8K
CE59
OPEN
DE58
MTZJ6.8B
5.15V/1200mA
5V3
1-C1

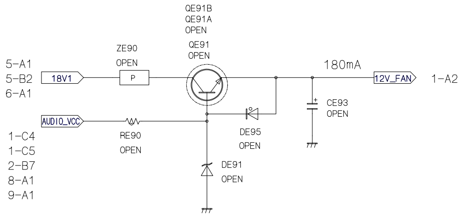
U04B LOWB [7] REGULATOR 2 (PE0197)

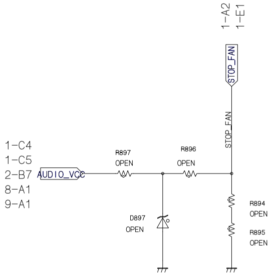

1
2
A
1-C4
1-C5
2-B7
9-A1
9-A1
AUDIO_VCC
L888
OPEN
GJ888
SHORT
Z860
20P2000
P
Q860C
Q860B
Q860A HEATSINK
Q860
2SD2396/2SC3852
R862
1/2R390
D861
MTZJ12C
D862
MTZJ12C
D863
1SS355-TE17
C860
35V100
D860
RK34 LF-A4
R865
1R1.5k
24V_AUDIO
1-B1
L889
OPEN
GJ889
SHORT
AUDIO_GND
1-B1


QE71
CE-1059
ON/OFF
Vin
Vin
GND
GND
GND
GND
Vset
Vout
Vout
1
2
3
4
5
6
7
8
9
10
GJ73
OPEN
620mA
LE73
TLN3481AH/AA
24V_INV
1-C4
1-C5
2-C7
9-A2
CE55
35V56uF
RE51
SHORT
RE52
150
CE57
OPEN
RE54
1/8W2.2k
RE53
1/8W2.2k
DE53
OPEN
1400mA
DE55
MA8180-L
DE52
1SS355
VCC_LCD
8-B2
PROTECT
9-A2
9-A2
QE82
2SC2412K
RE83
47k
QE74
RN1403
POWER_LCD
1-C1
RE82
47k
B

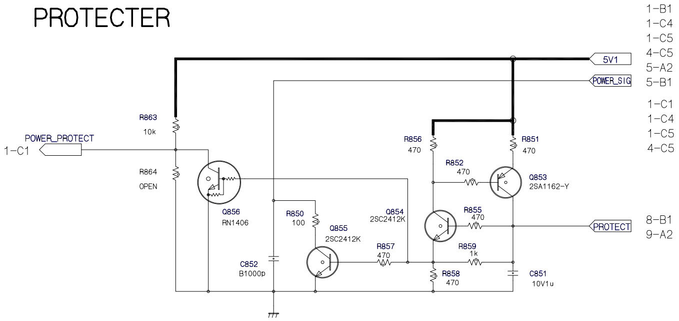
U04B LOWB [8] REGULATOR 3 (PE0197)

SET FAN REG

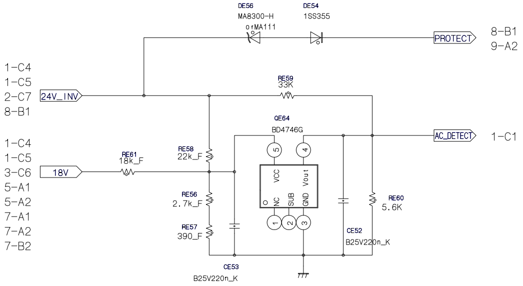

QE91B
QE91A
OPEN
QE91
OPEN
ZE90
OPEN
P
5-A1
5-B2
6-A1
18V1
180mA
12V_FAN
1-A2
CE93
OPEN
AUDIO_VCC
RE90
OPEN
DE95
OPEN
1-C4
1-C5
2-B7
8-A1
9-A1
DE91
OPEN


1-A2
1-E1
STOP_FAN
STOP_FAN
1-C4
1-C5
2-B7
8-A1
9-A1
AUDIO_VCC
R897
OPEN
R896
OPEN
D897
OPEN
R894
OPEN
R895
OPEN

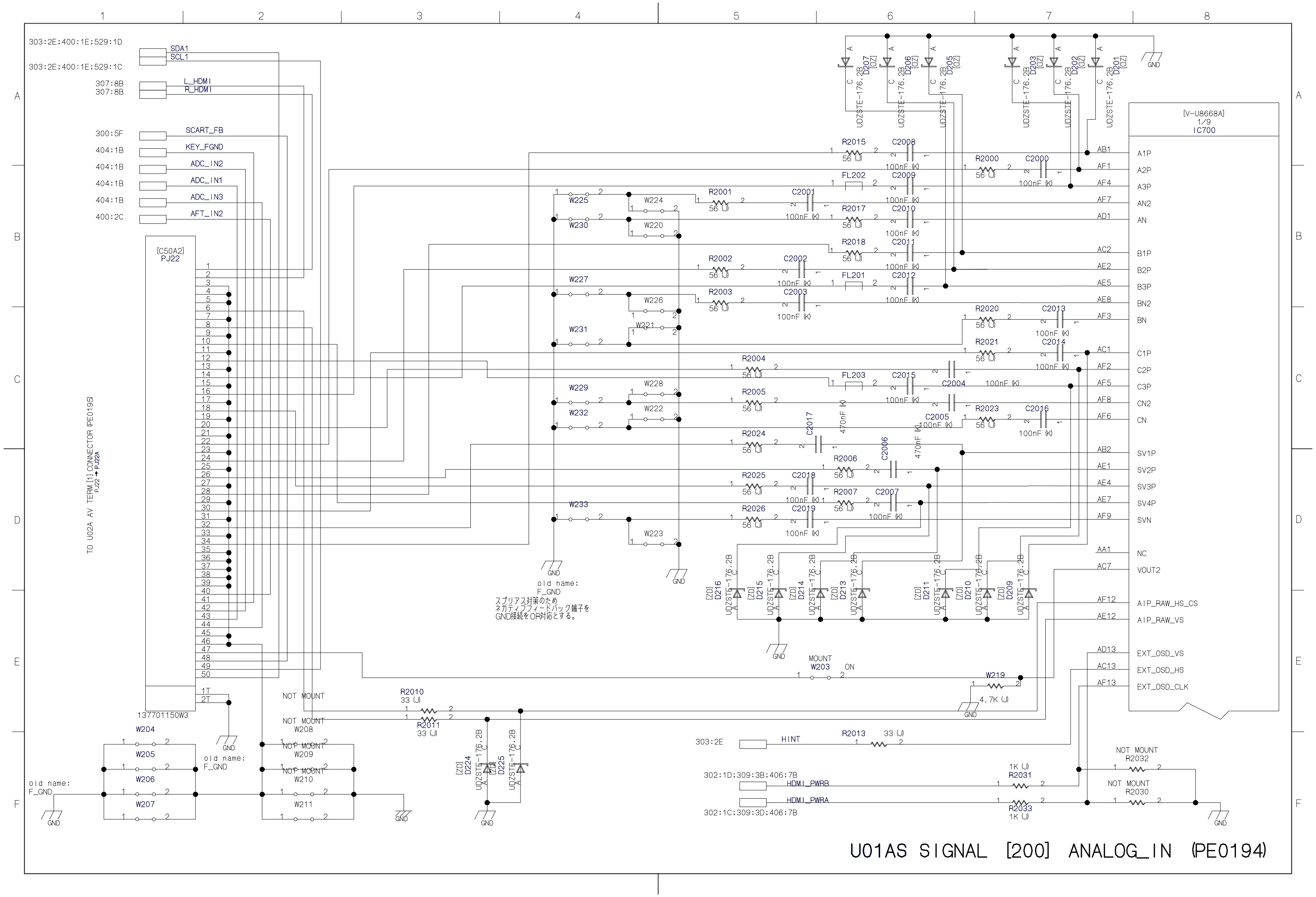
PROTECTER


1-B1
1-C4
1-C5
4-C5
5-A2
5-B1
5V1
POWER_SIG
1-C1
1-C4
1-C5
4-C5
R863
10k
POWER_PROTECT
1-C1
R864
OPEN
R856
470
R851
470
R852
470
Q853
2SA1162-Y
Q856
RN1406
R850
100
Q855
2SC2412K
Q854
2SC2412K
R855
470
PROTECT
8-B1
9-A2
R859
1k
R857
470
C852
B1000p
R858
470
C851
10V1u

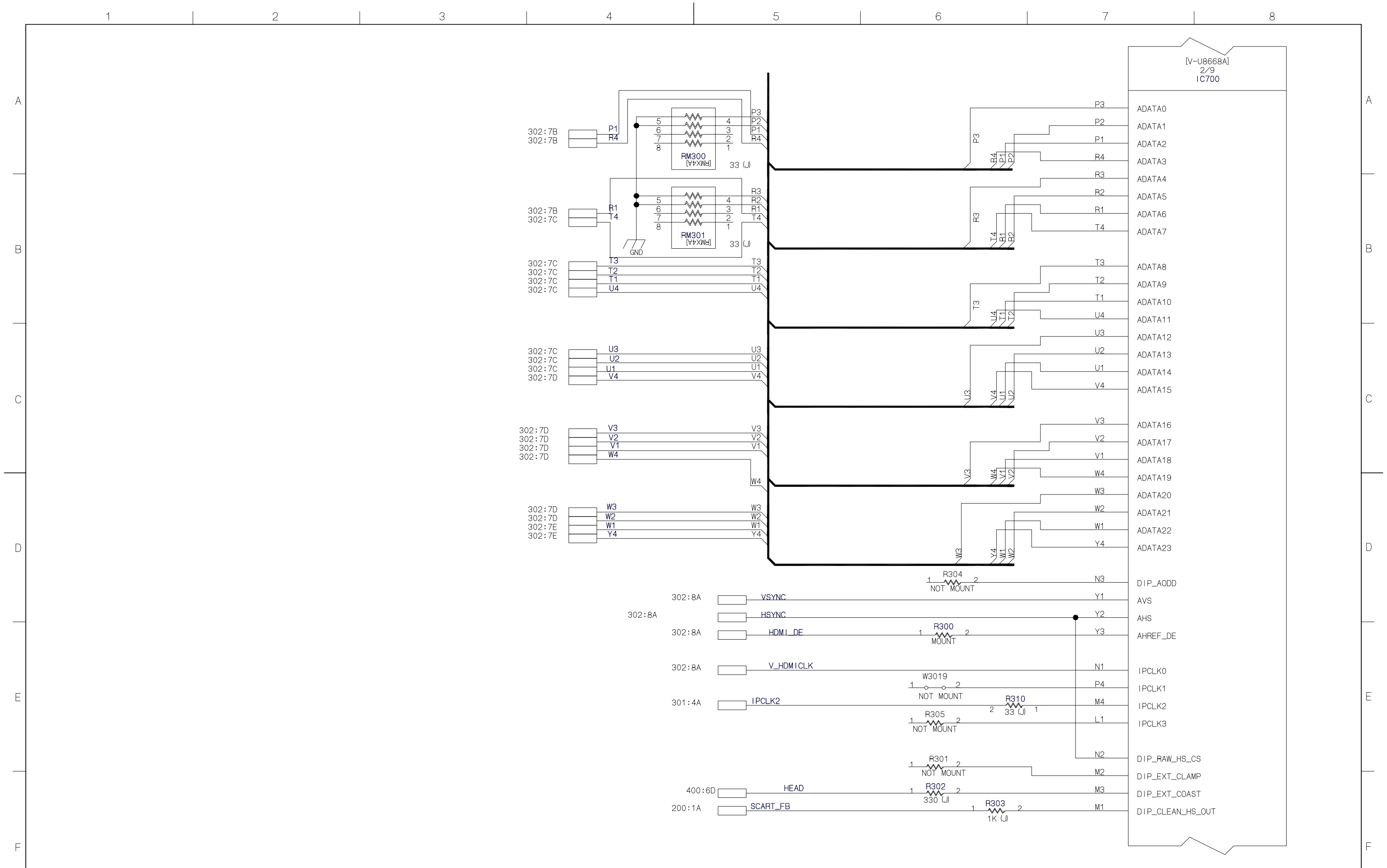
ACDETECT


DE56
MA8300-H
orMA111
DE54
1SS355
PROTECT
8-B1
9-A2
1-C4
1-C5
2-C7
8-B1
24V_INV
RE59
33K
QE64
BD4746G
AC_DETECT
1-C1
1-C4
1-C5
3-C6
5-A1
5-A2
7-A1
7-A2
7-B2
18V
RE61
18k_F
RE58
22k_F
5
4
VCC
Vout
NC
SUB
GND
1
2
3
RE56
2.7k_F
RE57
390_F
RE60
5.6K
CE52
B25V220n_K
CE53
B25V220n_K

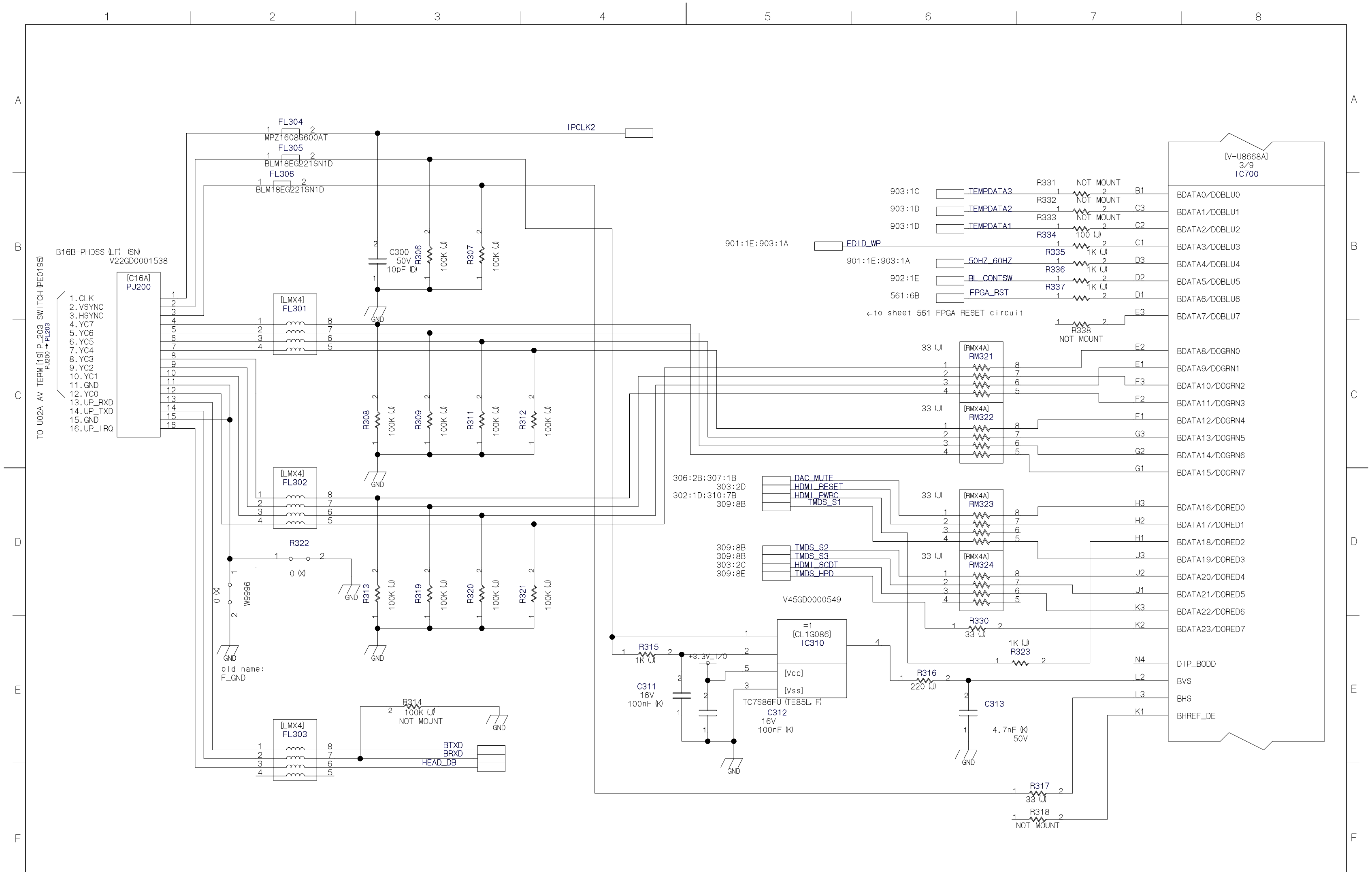
U04B LOWB [9] OTHER (PE0197)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
303:2E:400:1E:529:1D
303:2E:400:1E:529:1C
SDA1
SCL1
307:8B
307:8B
L_HDMI
R_HDMI
300:5F
SCART_FB
404:1B
KEY_FGND
404:1B
ADC_IN2
404:1B
ADC_IN1
404:1B
ADC_IN3
400:2C
AFT_IN2
[C50A2]
PJ22
137701150W3
TO U02A AV TERM[1] CONNECTOR (PE0195)
PJ22→PJ22A
UDZSTE-176.2B
D207
D206
D205
D203
D202
D201
[DZ]
GND
[V-U8668A]
1/9
IC700
A1P
A2P
A3P
AN2
AN
B1P
B2P
B3P
BN2
BN
C1P
C2P
C3P
CN2
CN
SV1P
SV2P
SV3P
SV4P
SVN
NC
VOUT2
AIP_RAW_HS_CS
AIP_RAW_VS
EXT_OSD_VS
EXT_OSD_HS
EXT_OSD_CLK
AB1
AF1
AF4
AF7
AD1
AC2
AE2
AE5
AE8
AF3
AC1
AF2
AF5
AF8
AF6
AB2
AE1
AE4
AE7
AF9
AA1
AC7
AF12
AE12
AD13
AC13
AF13
R2015
R2000
R2001
R2017
R2018
R2002
R2003
R2020
R2021
R2004
R2005
R2023
R2024
R2006
R2025
R2007
R2026
56 (J)
C2008
C2000
C2009
C2001
C2010
C2011
C2002
C2012
C2003
C2013
C2014
C2015
C2004
C2005
C2016
C2017
C2006
C2018
C2007
C2019
100nF (K)
470nF (K)
FL202
FL201
FL203
W225
W224
W230
W220
W227
W226
W231
W221
W229
W228
W232
W222
W233
W223
old name:
F_GND
スプリアス対策のため
ネガティブフィードバック端子を
GND接続をOR対応とする。
D216
D215
D214
D213
D211
D210
D209
[ZD]
MOUNT
W203
ON
W219
4.7K (J)
NOT MOUNT
R2010
33 (J)
R2011
33 (J)
W208
W209
W210
W211
W204
W205
W206
W207
D224
D225
303:2E
HINT
R2013
33 (J)
302:1D:309:3B:406:7B
HDMI_PWRB
R2031
1K (J)
302:1C:309:3D:406:7B
HDMI_PWRA
R2033
1K (J)
R2032
R2030

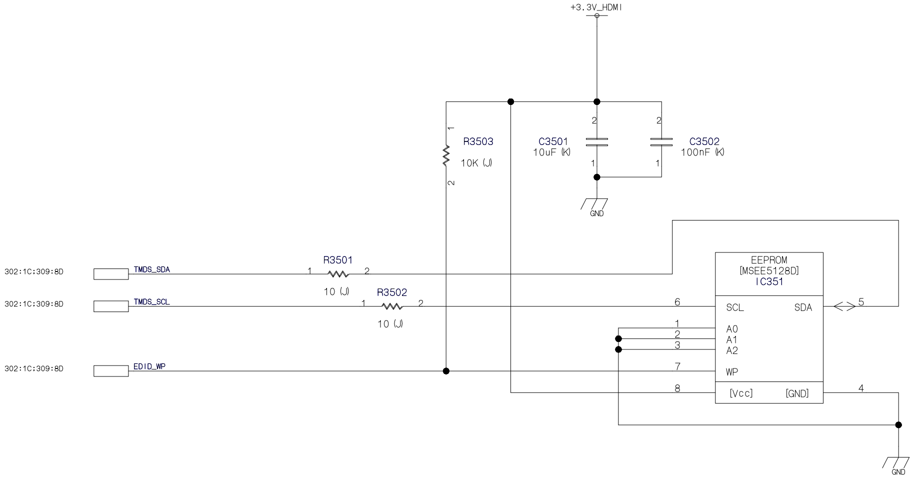
U01AS SIGNAL [200] ANALOG_IN (PE0194)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
[V-U8668A]
2/9
IC700
302:7B
302:7B
P1
R4
RM300
[RMX4A]
33 (J)
302:7B
302:7C
R1
T4
RM301
[RMX4A]
33 (J)
GND
5
6
7
8
4
3
2
1
P3
P2
P1
R4
R3
R2
R1
T4
302:7C
302:7C
302:7C
302:7C
T3
T2
T1
U4
302:7C
302:7C
302:7C
302:7D
U3
U2
U1
V4
302:7D
302:7D
302:7D
302:7D
V3
V2
V1
W4
302:7D
302:7D
302:7E
302:7E
W3
W2
W1
Y4
P3 ADATA0
P2 ADATA1
P1 ADATA2
R4 ADATA3
R3 ADATA4
R2 ADATA5
R1 ADATA6
T4 ADATA7
T3 ADATA8
T2 ADATA9
T1 ADATA10
U4 ADATA11
U3 ADATA12
U2 ADATA13
U1 ADATA14
V4 ADATA15
V3 ADATA16
V2 ADATA17
V1 ADATA18
W4 ADATA19
W3 ADATA20
W2 ADATA21
W1 ADATA22
Y4 ADATA23
R304
NOT MOUNT
N3 DIP_AODD
302:8A
VSYNC
Y1 AVS
302:8A
HSYNC
Y2 AHS
302:8A
HDMI_DE
R300
MOUNT
Y3 AHREF_DE
302:8A
V_HDMICLK
N1 IPCLK0
W3019
NOT MOUNT
P4 IPCLK1
301:4A
IPCLK2
R310
33 (J)
M4 IPCLK2
R305
NOT MOUNT
L1 IPCLK3
N2 DIP_RAW_HS_CS
R301
NOT MOUNT
M2 DIP_EXT_CLAMP
400:6D
HEAD
R302
330 (J)
M3 DIP_EXT_COAST
200:1A
SCART_FB
R303
1K (J)
M1 DIP_CLEAN_HS_OUT

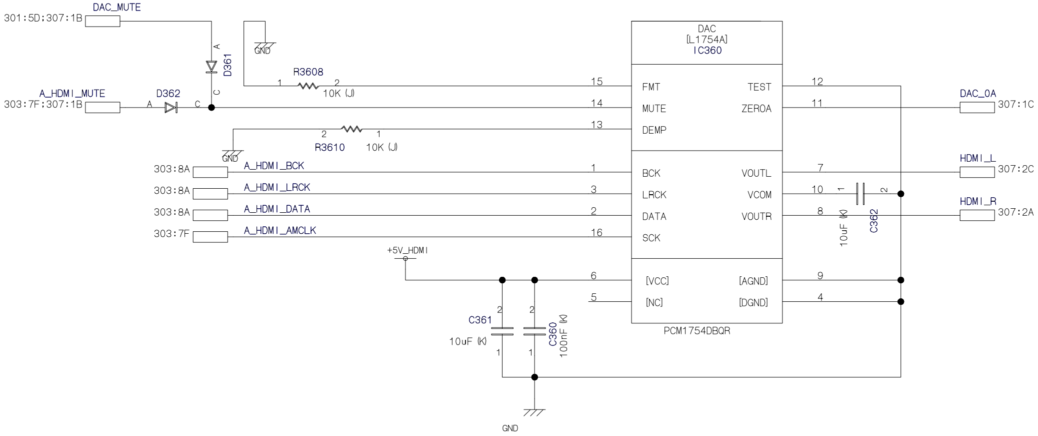
U01AS SIGNAL [300] DIGITAL_IN_A (PE0194)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
TO U02A AV TERM [19] PL203 SWITCH (PE0195)
PJ200 → PL203
B16B-PHDSS (LF) (SN)
V22GD0001538
[C16A]
PJ200
1.CLK
2.VSYNC
3.HSYNC
4.YC7
5.YC6
6.YC5
7.YC4
8.YC3
9.YC2
10.YC1
11.GND
12.YC0
13.UP_RXD
14.UP_TXD
15.GND
16.UP_IRQ
FL304
MPZ1608S600AT
FL305
BLM18EG221SN1D
FL306
BLM18EG221SN1D
IPCLK2
C300
50V
10pF (D)
R306
100K (J)
R307
100K (J)
GND
[LMX4]
FL301
[LMX4]
FL302
[LMX4]
FL303
R308
100K (J)
R309
100K (J)
R311
100K (J)
R312
100K (J)
R322
0 (X)
W9996
0 (X)
GND
old name:
F_GND
R313
100K (J)
R319
100K (J)
R320
100K (J)
R321
100K (J)
R314
100K (J)
NOT MOUNT
BTXD
BRXD
HEAD_DB
[V-U8668A]
3/9
IC700
903:1C
TEMPDATA3
R331
NOT MOUNT
903:1D
TEMPDATA2
R332
NOT MOUNT
903:1D
TEMPDATA1
R333
NOT MOUNT
901:1E;903:1A
EDID_WP
R334
100 (J)
901:1E;903:1A
50HZ_60HZ
R335
1K (J)
902:1E
BL_CONTSW
R336
1K (J)
561:6B
FPGA_RST
R337
1K (J)
←to sheet 561 FPGA RESET circuit
R338
NOT MOUNT
B1
BDATA0/DOBLU0
C3
BDATA1/DOBLU1
C2
BDATA2/DOBLU2
C1
BDATA3/DOBLU3
D3
BDATA4/DOBLU4
D2
BDATA5/DOBLU5
D1
BDATA6/DOBLU6
E3
BDATA7/DOBLU7
E2
BDATA8/DOGRN0
E1
BDATA9/DOGRN1
F3
BDATA10/DOGRN2
F2
BDATA11/DOGRN3
F1
BDATA12/DOGRN4
G3
BDATA13/DOGRN5
G2
BDATA14/DOGRN6
G1
BDATA15/DOGRN7
H3
BDATA16/DORED0
H2
BDATA17/DORED1
H1
BDATA18/DORED2
J3
BDATA19/DORED3
J2
BDATA20/DORED4
J1
BDATA21/DORED5
K3
BDATA22/DORED6
K2
BDATA23/DORED7
N4
DIP_BODD
L2
BVS
L3
BHS
K1
BHREF_DE
33 (J)
[RMX4A]
RM321
33 (J)
[RMX4A]
RM322
33 (J)
[RMX4A]
RM323
33 (J)
[RMX4A]
RM324
306:2B;307:1B
DAC_MUTE
303:2D
HDMI_RESET
302:1D;310:7B
HDMI_PWRC
309:8B
TMDS_S1
309:8B
TMDS_S2
309:8B
TMDS_S3
303:2C
HDMI_SCDT
309:8E
TMDS_HPD
V45GD0000549
R330
33 (J)
R323
1K (J)
=1
[CL1G086]
IC310
[Vcc]
[Vss]
TC7S86FU (TE85L, F)
R315
1K (J)
+3.3V_I/O
C311
16V
100nF (K)
C312
16V
100nF (K)
R316
220 (J)
C313
4.7nF (K)
50V
R317
33 (J)
R318
NOT MOUNT

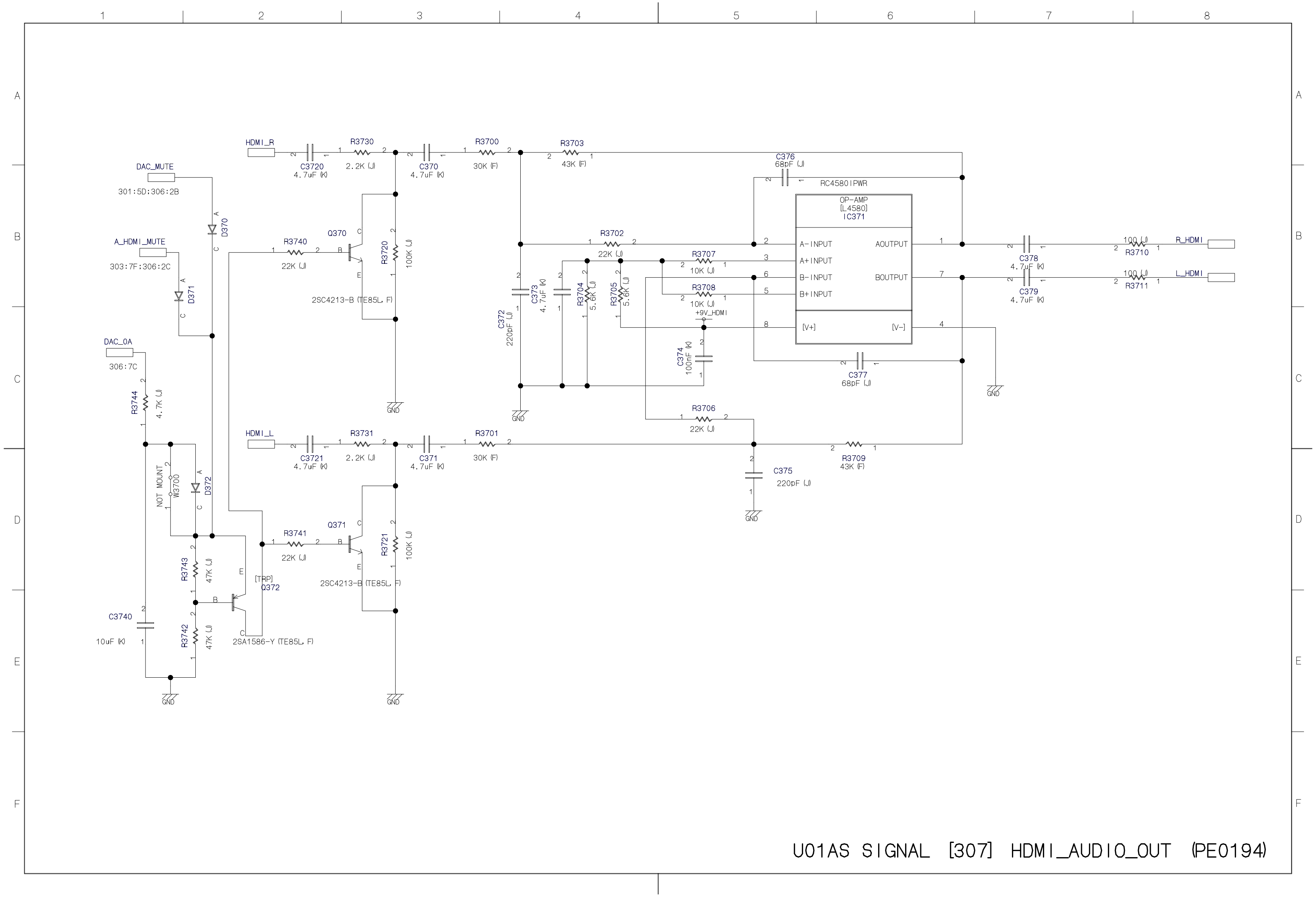
U01AS SIGNAL [301] DIGITAL_IN_B (PE0194)


+3.3V_HDMI
R3503
10K (J)
C3501
10uF (K)
C3502
100nF (K)
GND
302:1C:309:8D
TMDS_SDA
R3501
10 (J)
302:1C:309:8D
TMDS_SCL
R3502
10 (J)
302:1C:309:8D
EDID_WP
EEPROM
[MSEE5128D]
IC351
SCL
SDA
A0
A1
A2
WP
[Vcc]
[GND]
GND

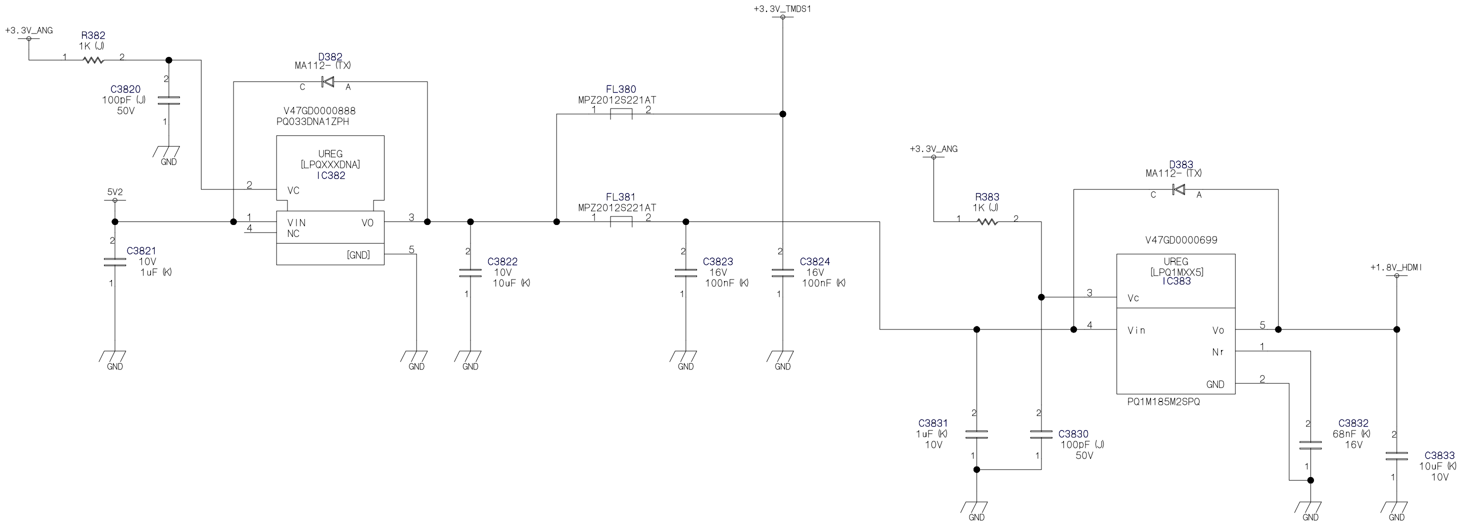
U01AS SIGNAL [305] HDMI EEPROM (PE0194)


DAC_MUTE
301:5D:307:1B
A
D361
C
A_HDMI_MUTE
303:7F:307:1B
D362
A
C
GND
R3608
1
2
10K (J)
2
R3610
1
10K (J)
GND
303:8A
A_HDMI_BCK
303:8A
A_HDMI_LRCK
303:8A
A_HDMI_DATA
303:7F
A_HDMI_AMCLK
+5V_HDMI
C361
2
10uF (K)
1
C360
2
100nF (K)
1
GND
DAC
[L1754A]
IC360
15
FMT
14
MUTE
13
DEMP
1
BCK
3
LRCK
2
DATA
16
SCK
6
[VCC]
5
[NC]
12
TEST
11
ZERO A
7
VOUTL
10
VCOM
8
VOUTR
9
[AGND]
4
[DGND]
PCM1754DBQR
1
2
10uF (K)
C362
DAC_0A
307:1C
HDMI_L
307:2C
HDMI_R
307:2A

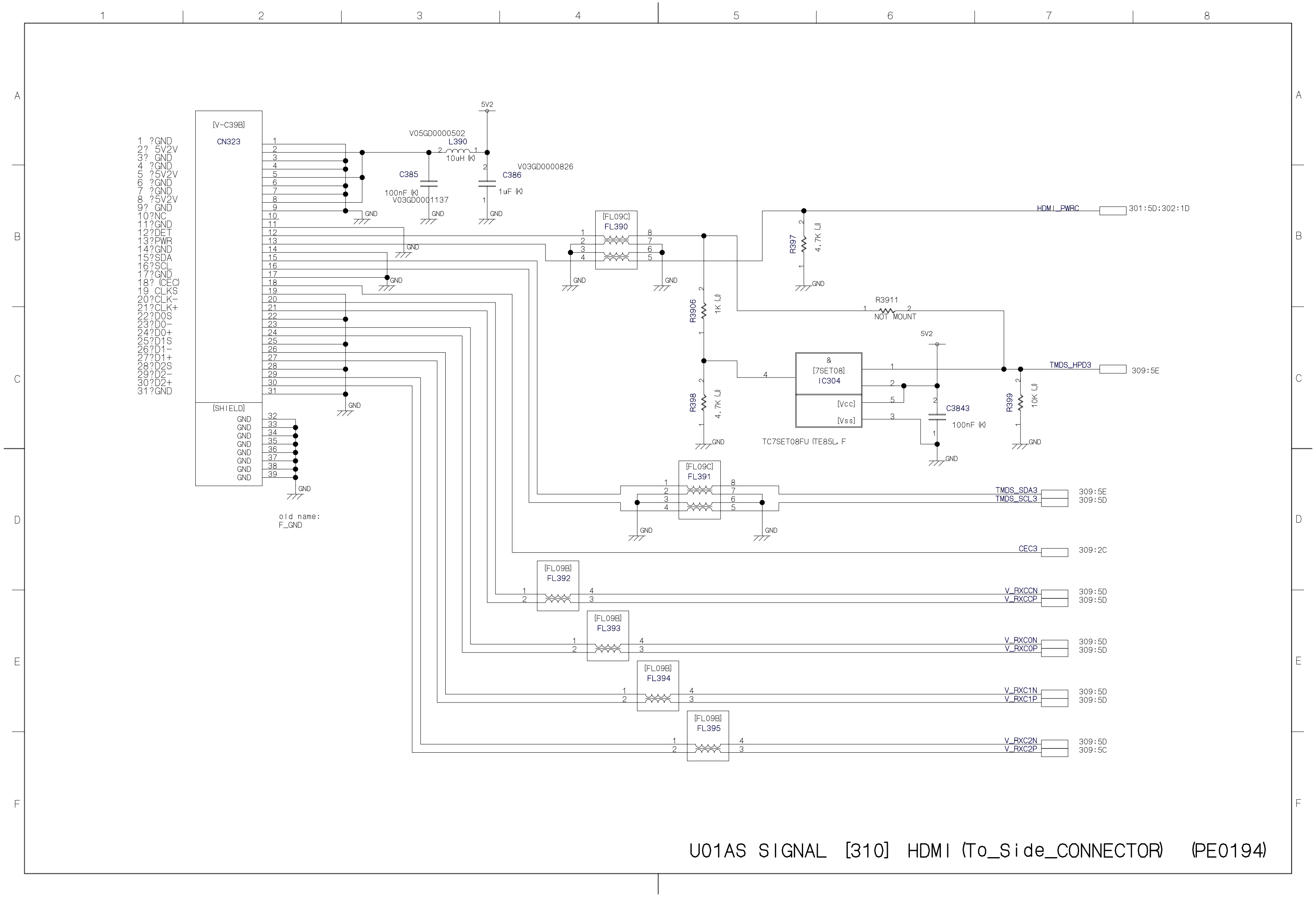
U01AS SIGNAL [306] HDMI_AUDIO_DAC (PE0194)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
HDMI_R
C3720
4.7uF (K)
R3730
2.2K (J)
C370
4.7uF (K)
R3700
30K (F)
R3703
43K (F)
C376
68pF (J)
RC4580IPWR
OP-AMP
[L4580]
IC371
A-INPUT
A+INPUT
B-INPUT
B+INPUT
AOUTPUT
BOUTPUT
[V+]
[V-]
+9V_HDMI
R3702
22K (J)
R3707
10K (J)
R3708
10K (J)
C372
220pF (J)
C373
4.7uF (K)
R3704
5.6K (J)
R3705
5.6K (J)
C374
100nF (K)
C377
68pF (J)
C378
4.7uF (K)
C379
4.7uF (K)
R3710
100 (J)
R3711
100 (J)
R_HDMI
L_HDMI
R3706
22K (J)
R3709
43K (F)
C375
220pF (J)
DAC_MUTE
301:5D:306:2B
D370
A_HDMI_MUTE
303:7F:306:2C
D371
DAC_0A
306:7C
R3744
4.7K (J)
R3740
22K (J)
Q370
2SC4213-B (TE85L, F)
R3720
100K (J)
HDMI_L
C3721
4.7uF (K)
R3731
2.2K (J)
C371
4.7uF (K)
R3701
30K (F)
NOT MOUNT
W3700
D372
R3741
22K (J)
Q371
2SC4213-B (TE85L, F)
R3721
100K (J)
R3743
47K (J)
R3742
47K (J)
[TRP]
Q372
2SA1586-Y (TE85L, F)
C3740
10uF (K)
GND

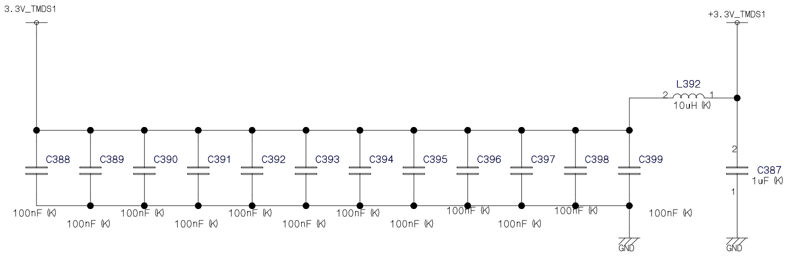
U01AS SIGNAL [307] HDMI_AUDIO_OUT (PE0194)

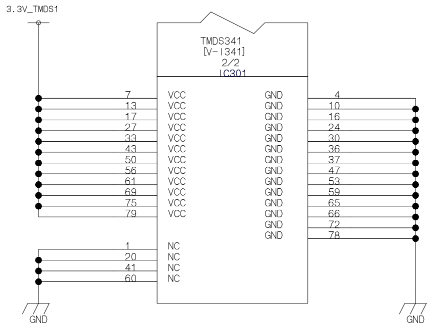

+3.3V_ANG
R382
1K (J)
1
2
C3820
100pF (J)
50V
GND
D382
MA112- (TX)
C
A
V47GD0000888
PQ033DNA1ZPH
UREG
[LPQXXXDNA]
IC382
VC
VIN
NC
VO
[GND]
5V2
C3821
10V
1uF (K)
GND
GND
C3822
10V
10uF (K)
GND
+3.3V_TMDS1
FL380
MPZ2012S221AT
FL381
MPZ2012S221AT
C3823
16V
100nF (K)
GND
C3824
16V
100nF (K)
GND
+3.3V_ANG
R383
1K (J)
D383
MA112- (TX)
V47GD0000699
UREG
[LPQ1MXXS]
IC383
Vc
Vin
Vo
Nr
GND
PQ1M185M2SPQ
+1.8V_HDMI
C3831
1uF (K)
10V
C3830
100pF (J)
50V
GND
C3832
68nF (K)
16V
GND
C3833
10uF (K)
10V
GND

U01AS SIGNAL [308] HDMI REG (PE0194)

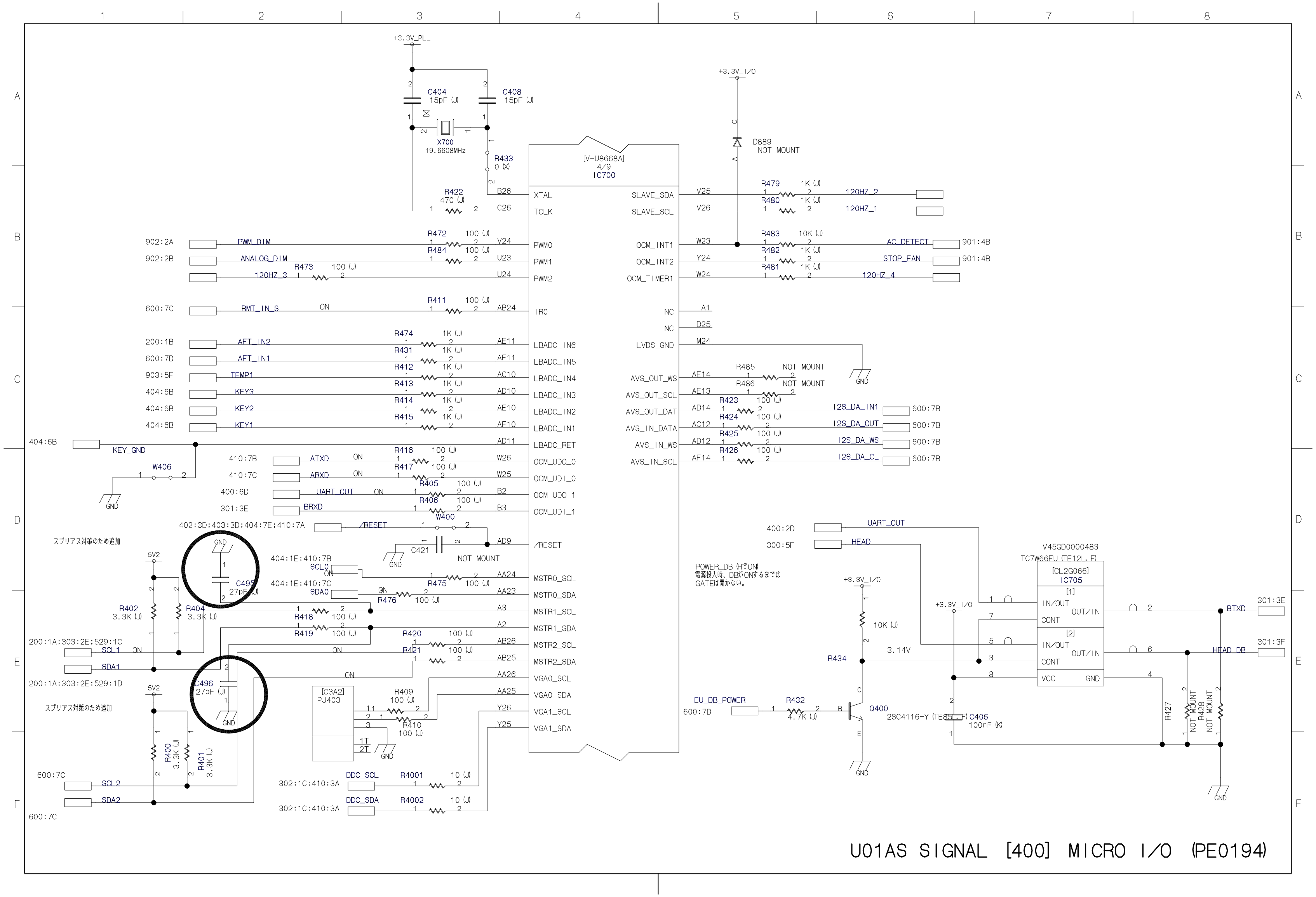

[V-C39B]
CN323
1 ?GND
2? 5V2V
3? GND
4 ?GND
5 ?5V2V
6 ?GND
7 ?GND
8 ?5V2V
9? GND
10?NC
11?GND
12?DET
13?PWR
14?GND
15?SDA
16?SCL
17?GND
18? (CEC)
19 CLKS
20?CLK-
21?CLK+
22?D0S
23?D0-
24?D0+
25?D1S
26?D1-
27?D1+
28?D2S
29?D2-
30?D2+
31?GND
[SHIELD]
old name:
F_GND
5V2
V05GD0000502
L390
10uH (K)
C385
100nF (K)
V03GD0001137
C386
1uF (K)
V03GD0000826
GND
[FL09C]
FL390
HDMI_PWRC
301:5D;302:1D
R397
4.7K (J)
R3906
1K (J)
R3911
NOT MOUNT
&
[7SET08]
IC304
[Vcc]
[Vss]
TC7SET08FU (TE85L, F
C3843
100nF (K)
R398
4.7K (J)
R399
10K (J)
TMDS_HPD3
309:5E
[FL09C]
FL391
TMDS_SDA3
TMDS_SCL3
309:5E
309:5D
CEC3
309:2C
[FL09B]
FL392
V_RXCCN
V_RXCCP
309:5D
309:5D
[FL09B]
FL393
V_RXC0N
V_RXC0P
309:5D
309:5D
[FL09B]
FL394
V_RXC1N
V_RXC1P
309:5D
309:5D
[FL09B]
FL395
V_RXC2N
V_RXC2P
309:5D
309:5C
1
2
3
4
5
6
7
8
A
B
C
D
E
F

U01AS SIGNAL [310] HDMI (To_Side_CONNECTOR) (PE0194)

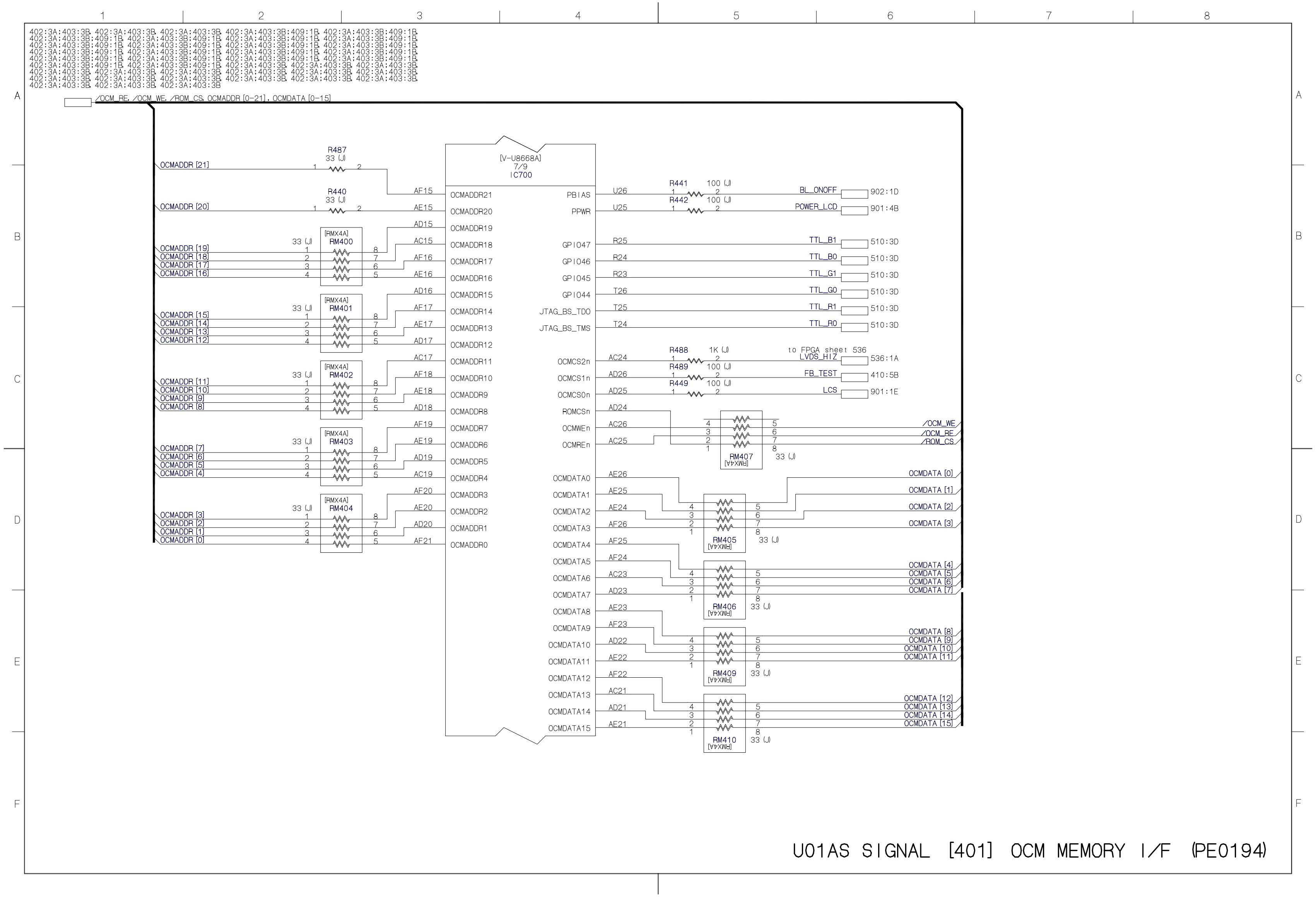

3.3V_TMDS1
+3.3V_TMDS1
L392
2
1
10uH (K)
C388
C389
C390
C391
C392
C393
C394
C395
C396
C397
C398
C399
100nF (K)
100nF (K)
100nF (K)
100nF (K)
100nF (K)
100nF (K)
100nF (K)
100nF (K)
100nF (K)
100nF (K)
100nF (K)
100nF (K)
2
C387
1uF (K)
1
GND
GND


3.3V_TMDS1
TMDS341
[V-I341]
2/2
IC301
7 VCC
13 VCC
17 VCC
27 VCC
33 VCC
43 VCC
50 VCC
56 VCC
61 VCC
69 VCC
75 VCC
79 VCC
1 NC
20 NC
41 NC
60 NC
GND 4
GND 10
GND 16
GND 24
GND 30
GND 36
GND 37
GND 47
GND 53
GND 59
GND 65
GND 66
GND 72
GND 78
GND
GND

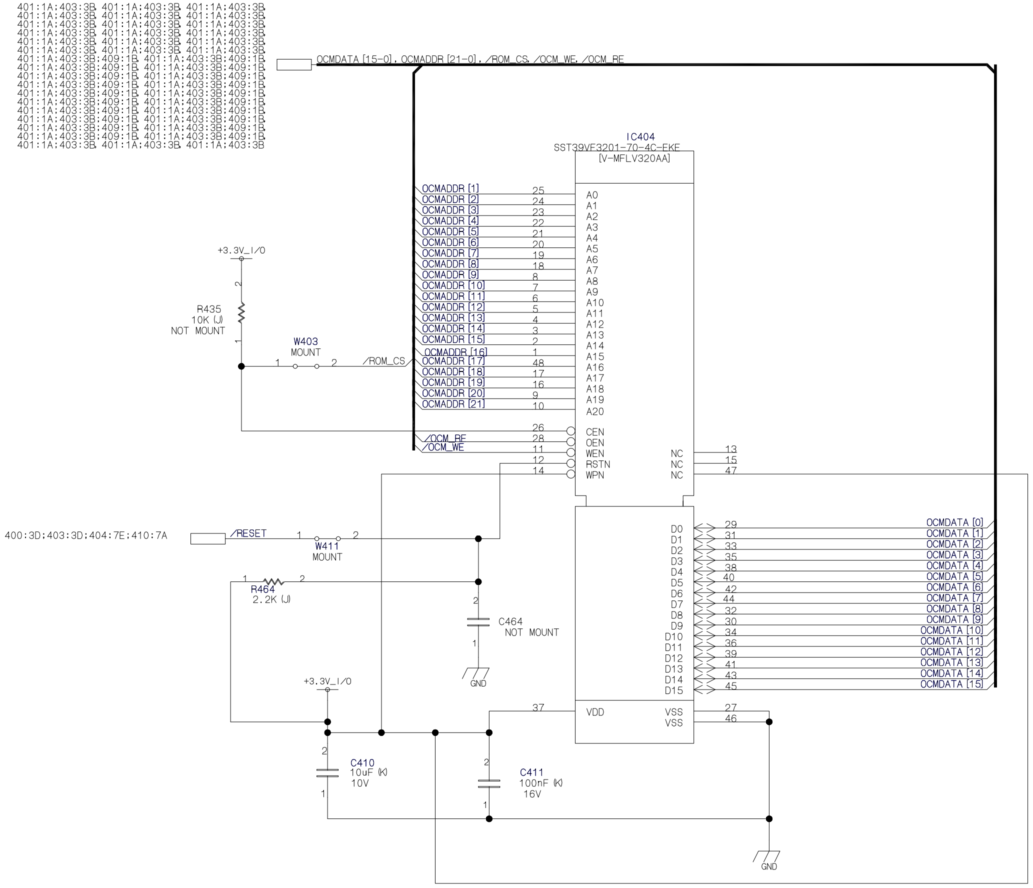
U01AS SIGNAL [311] HDMI (TMDS_POWER) (PE0194)


+3.3V_PLL
C404 15pF (J)
C408 15pF (J)
X700 19.6608MHz
R433 0 (X)
R422 470 (J)
[V-U8668A] 4/9 IC700
XTAL
TCLK
PWM0
PWM1
PWM2
IR0
LBADC_IN6
LBADC_IN5
LBADC_IN4
LBADC_IN3
LBADC_IN2
LBADC_IN1
LBADC_RET
OCM_UDO_0
OCM_UDI_0
OCM_UDO_1
OCM_UDI_1
/RESET
MSTR0_SCL
MSTR0_SDA
MSTR1_SCL
MSTR1_SDA
MSTR2_SCL
MSTR2_SDA
VGA0_SCL
VGA0_SDA
VGA1_SCL
VGA1_SDA
SLAVE_SDA
SLAVE_SCL
OCM_INT1
OCM_INT2
OCM_TIMER1
NC
NC
LVDS_GND
AVS_OUT_WS
AVS_OUT_SCL
AVS_OUT_DAT
AVS_IN_DATA
AVS_IN_WS
AVS_IN_SCL
902:2A PWM_DIM
902:2B ANALOG_DIM
120HZ_3
600:7C RMT_IN_S ON
200:1B AFT_IN2
600:7D AFT_IN1
903:5F TEMP1
404:6B KEY3
404:6B KEY2
404:6B KEY1
404:6B KEY_GND
W406
GND
410:7B ATXD ON
410:7C ARXD ON
400:6D UART_OUT ON
301:3E BRXD
402:3D;403:3D;404:7E;410:7A /RESET
W400
C421
NOT MOUNT
R472 100 (J)
R484 100 (J)
R473 100 (J)
R411 100 (J)
R474 1K (J)
R431 1K (J)
R412 1K (J)
R413 1K (J)
R414 1K (J)
R415 1K (J)
R416 100 (J)
R417 100 (J)
R405 100 (J)
R406 100 (J)
R475 100 (J)
R476 100 (J)
R418 100 (J)
R419 100 (J)
R420 100 (J)
R421 100 (J)
R409 100 (J)
R410 100 (J)
404:1E;410:7B SCL0 ON
404:1E;410:7C SDA0 GN
スプリアス対策のため追加
5V2
C495 27pF (J)
R402 3.3K (J)
R404 3.3K (J)
200:1A;303:2E;529:1C SCL1 ON
SDA1
200:1A;303:2E;529:1D
スプリアス対策のため追加
5V2
C496 27pF (J)
R400 3.3K (J)
R401 3.3K (J)
600:7C SCL2
SDA2
600:7C
[C3A2] PJ403
302:1C;410:3A DDC_SCL
R4001 10 (J)
302:1C;410:3A DDC_SDA
R4002 10 (J)
+3.3V_I/O
D889 NOT MOUNT
R479 1K (J) 120HZ_2
R480 1K (J) 120HZ_1
R483 10K (J) AC_DETECT 901:4B
R482 1K (J) STOP_FAN 901:4B
R481 1K (J) 120HZ_4
R485 NOT MOUNT
R486 NOT MOUNT
R423 100 (J) I2S_DA_IN1 600:7B
R424 100 (J) I2S_DA_OUT 600:7B
R425 100 (J) I2S_DA_WS 600:7B
R426 100 (J) I2S_DA_CL 600:7B
400:2D UART_OUT
300:5F HEAD
POWER_DB (HでON)
電源投入時、DBがONするまでは
GATEは開かない。
+3.3V_I/O
R434 10K (J)
3.14V
EU_DB_POWER
600:7D
R432 4.7K (J)
Q400 2SC4116-Y (TE85L,F)
+3.3V_I/O
C406 100nF (K)
V45GD0000483
TC7W66FU (TE12L,F)
[CL2G066] IC705
IN/OUT
CONT
OUT/IN
VCC
GND
R427
R428 NOT MOUNT
NOT MOUNT
BTXD 301:3E
HEAD_DB 301:3F
GND

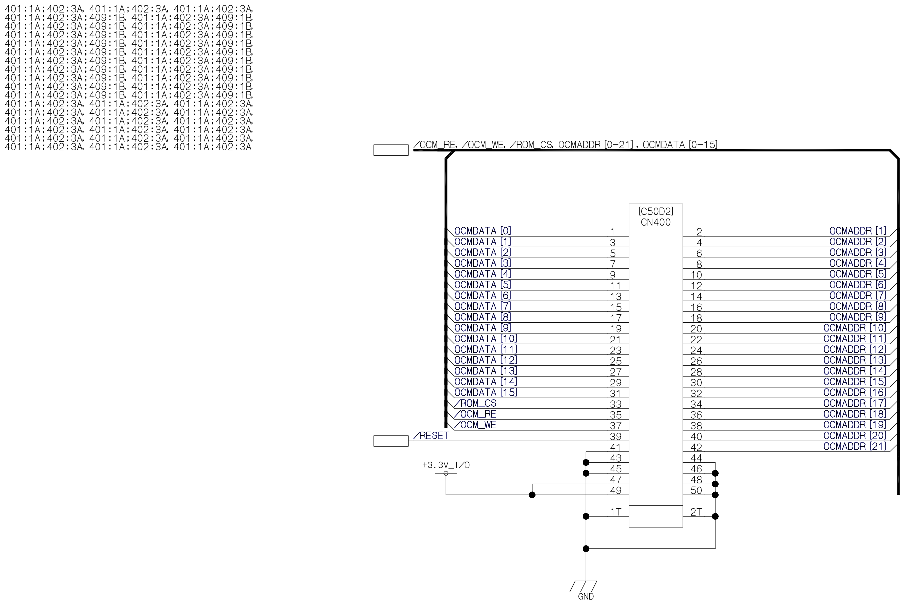
U01AS SIGNAL [400] MICRO I/O (PE0194)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
402:3A;403:3B, 402:3A;403:3B, 402:3A;403:3B, 402:3A;403:3B;409:1B, 402:3A;403:3B;409:1B,
402:3A;403:3B;409:1B, 402:3A;403:3B;409:1B, 402:3A;403:3B;409:1B, 402:3A;403:3B;409:1B,
402:3A;403:3B;409:1B, 402:3A;403:3B;409:1B, 402:3A;403:3B;409:1B, 402:3A;403:3B;409:1B,
402:3A;403:3B;409:1B, 402:3A;403:3B;409:1B, 402:3A;403:3B;409:1B, 402:3A;403:3B;409:1B,
402:3A;403:3B;409:1B, 402:3A;403:3B;409:1B, 402:3A;403:3B;409:1B, 402:3A;403:3B;409:1B,
402:3A;403:3B;409:1B, 402:3A;403:3B;409:1B, 402:3A;403:3B, 402:3A;403:3B, 402:3A;403:3B,
402:3A;403:3B, 402:3A;403:3B, 402:3A;403:3B, 402:3A;403:3B, 402:3A;403:3B, 402:3A;403:3B,
402:3A;403:3B, 402:3A;403:3B, 402:3A;403:3B, 402:3A;403:3B, 402:3A;403:3B, 402:3A;403:3B,
402:3A;403:3B, 402:3A;403:3B, 402:3A;403:3B
/OCM_RE, /OCM_WE, /ROM_CS, OCMADDR [0-21], OCMDATA [0-15]
[V-U8668A]
7/9
IC700
R487
33 (J)
OCMADDR [21]
R440
33 (J)
OCMADDR [20]
[RMX4A]
RM400
33 (J)
OCMADDR [19]
OCMADDR [18]
OCMADDR [17]
OCMADDR [16]
[RMX4A]
RM401
33 (J)
OCMADDR [15]
OCMADDR [14]
OCMADDR [13]
OCMADDR [12]
[RMX4A]
RM402
33 (J)
OCMADDR [11]
OCMADDR [10]
OCMADDR [9]
OCMADDR [8]
[RMX4A]
RM403
33 (J)
OCMADDR [7]
OCMADDR [6]
OCMADDR [5]
OCMADDR [4]
[RMX4A]
RM404
33 (J)
OCMADDR [3]
OCMADDR [2]
OCMADDR [1]
OCMADDR [0]
AF15 OCMADDR21
AE15 OCMADDR20
AD15 OCMADDR19
AC15 OCMADDR18
AF16 OCMADDR17
AE16 OCMADDR16
AD16 OCMADDR15
AF17 OCMADDR14
AE17 OCMADDR13
AD17 OCMADDR12
AC17 OCMADDR11
AF18 OCMADDR10
AE18 OCMADDR9
AD18 OCMADDR8
AF19 OCMADDR7
AE19 OCMADDR6
AD19 OCMADDR5
AC19 OCMADDR4
AF20 OCMADDR3
AE20 OCMADDR2
AD20 OCMADDR1
AF21 OCMADDR0
PBIAS U26
PPWR U25
GPIO47 R25
GPIO46 R24
GPIO45 R23
GPIO44 T26
JTAG_BS_TDO T25
JTAG_BS_TMS T24
OCMCS2n AC24
OCMCS1n AD26
OCMCS0n AD25
ROMCSn AD24
OCMWEn AC26
OCMREn AC25
OCMDATA0 AE26
OCMDATA1 AE25
OCMDATA2 AE24
OCMDATA3 AF26
OCMDATA4 AF25
OCMDATA5 AF24
OCMDATA6 AC23
OCMDATA7 AD23
OCMDATA8 AE23
OCMDATA9 AF23
OCMDATA10 AD22
OCMDATA11 AE22
OCMDATA12 AF22
OCMDATA13 AC21
OCMDATA14 AD21
OCMDATA15 AE21
R441
100 (J)
BL_ONOFF
902:1D
R442
100 (J)
POWER_LCD
901:4B
TTL_B1
510:3D
TTL_B0
510:3D
TTL_G1
510:3D
TTL_G0
510:3D
TTL_R1
510:3D
TTL_R0
510:3D
R488
1K (J)
to FPGA sheet 536
LVDS_HIZ
536:1A
R489
100 (J)
FB_TEST
410:5B
R449
100 (J)
LCS
901:1E
RM407
[RMX4A]
33 (J)
/OCM_WE
/OCM_RE
/ROM_CS
RM405
[RMX4A]
33 (J)
OCMDATA [0]
OCMDATA [1]
OCMDATA [2]
OCMDATA [3]
RM406
[RMX4A]
33 (J)
OCMDATA [4]
OCMDATA [5]
OCMDATA [6]
OCMDATA [7]
RM409
[RMX4A]
33 (J)
OCMDATA [8]
OCMDATA [9]
OCMDATA [10]
OCMDATA [11]
RM410
[RMX4A]
33 (J)
OCMDATA [12]
OCMDATA [13]
OCMDATA [14]
OCMDATA [15]

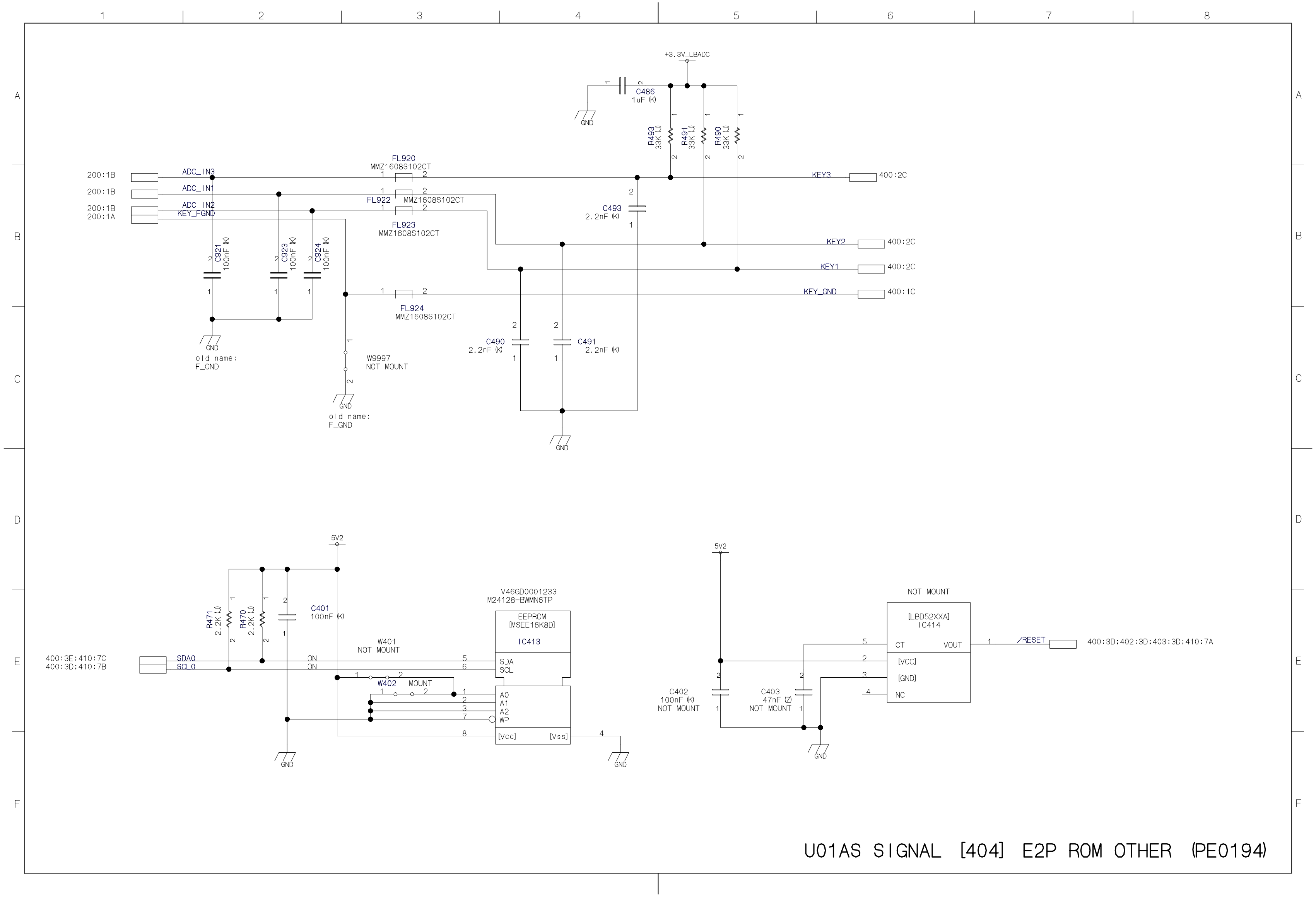
U01AS SIGNAL [401] OCM MEMORY I/F (PE0194)


401:1A;403:3B, 401:1A;403:3B, 401:1A;403:3B,
401:1A;403:3B, 401:1A;403:3B, 401:1A;403:3B,
401:1A;403:3B, 401:1A;403:3B, 401:1A;403:3B,
401:1A;403:3B, 401:1A;403:3B, 401:1A;403:3B,
401:1A;403:3B, 401:1A;403:3B, 401:1A;403:3B,
401:1A;403:3B, 401:1A;403:3B, 401:1A;403:3B,
401:1A;403:3B;409:1B, 401:1A;403:3B;409:1B,
401:1A;403:3B;409:1B, 401:1A;403:3B;409:1B,
401:1A;403:3B;409:1B, 401:1A;403:3B;409:1B,
401:1A;403:3B;409:1B, 401:1A;403:3B;409:1B,
401:1A;403:3B;409:1B, 401:1A;403:3B;409:1B,
401:1A;403:3B;409:1B, 401:1A;403:3B;409:1B,
401:1A;403:3B;409:1B, 401:1A;403:3B;409:1B,
401:1A;403:3B;409:1B, 401:1A;403:3B;409:1B,
401:1A;403:3B;409:1B, 401:1A;403:3B;409:1B,
401:1A;403:3B;409:1B, 401:1A;403:3B;409:1B,
401:1A;403:3B, 401:1A;403:3B, 401:1A;403:3B
OCMDATA [15-0], OCMADDR [21-0], /ROM_CS, /OCM_WE, /OCM_RE
IC404
SST39VF3201-70-4C-EKE
[V-MFLV320AA]
OCMADDR [1] 25 A0
OCMADDR [2] 24 A1
OCMADDR [3] 23 A2
OCMADDR [4] 22 A3
OCMADDR [5] 21 A4
OCMADDR [6] 20 A5
OCMADDR [7] 19 A6
OCMADDR [8] 18 A7
OCMADDR [9] 8 A8
OCMADDR [10] 7 A9
OCMADDR [11] 6 A10
OCMADDR [12] 5 A11
OCMADDR [13] 4 A12
OCMADDR [14] 3 A13
OCMADDR [15] 2 A14
OCMADDR [16] 1 A15
OCMADDR [17] 48 A16
OCMADDR [18] 17 A17
OCMADDR [19] 16 A18
OCMADDR [20] 9 A19
OCMADDR [21] 10 A20
26 CEN
/OCM_RE 28 OEN
/OCM_WE 11 WEN
12 RSTN
14 WPN
NC 13
NC 15
NC 47
D0 29 OCMDATA [0]
D1 31 OCMDATA [1]
D2 33 OCMDATA [2]
D3 35 OCMDATA [3]
D4 38 OCMDATA [4]
D5 40 OCMDATA [5]
D6 42 OCMDATA [6]
D7 44 OCMDATA [7]
D8 32 OCMDATA [8]
D9 30 OCMDATA [9]
D10 34 OCMDATA [10]
D11 36 OCMDATA [11]
D12 39 OCMDATA [12]
D13 41 OCMDATA [13]
D14 43 OCMDATA [14]
D15 45 OCMDATA [15]
37 VDD
VSS 27
VSS 46
+3.3V_I/O
2
R435
10K (J)
NOT MOUNT
1
W403
MOUNT
1
2
/ROM_CS
400:3D;403:3D;404:7E;410:7A
/RESET
1
W411
MOUNT
2
1
R464
2.2K (J)
2
2
C464
NOT MOUNT
1
GND
+3.3V_I/O
2
C410
10uF (K)
10V
1
2
C411
100nF (K)
16V
1
GND

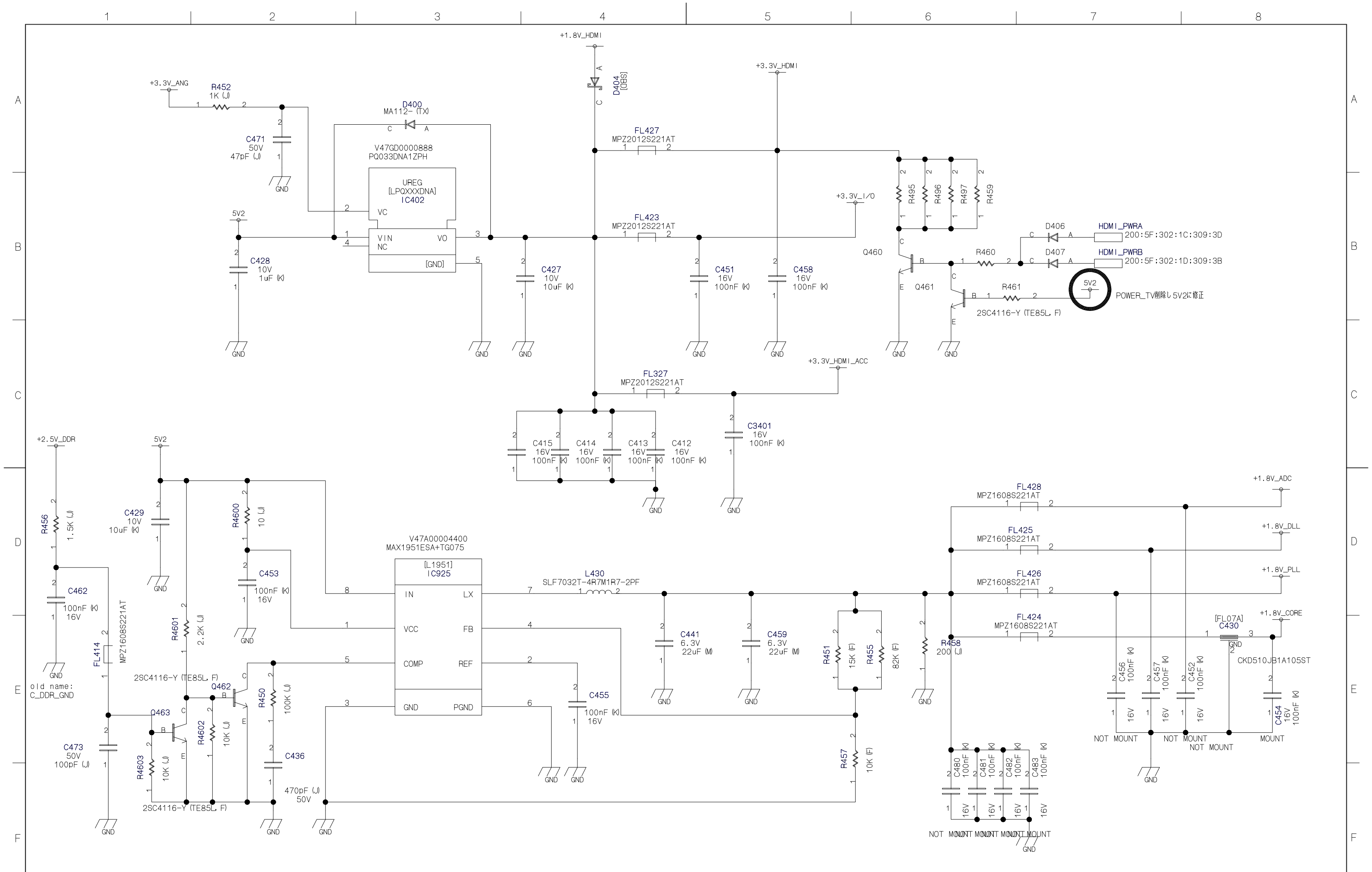
U01AS SIGNAL [402] FLASH MEMORY (PE0194)


401:1A;402:3A, 401:1A;402:3A, 401:1A;402:3A,
401:1A;402:3A;409:1B, 401:1A;402:3A;409:1B,
401:1A;402:3A;409:1B, 401:1A;402:3A;409:1B,
401:1A;402:3A;409:1B, 401:1A;402:3A;409:1B,
401:1A;402:3A;409:1B, 401:1A;402:3A;409:1B,
401:1A;402:3A;409:1B, 401:1A;402:3A;409:1B,
401:1A;402:3A;409:1B, 401:1A;402:3A;409:1B,
401:1A;402:3A;409:1B, 401:1A;402:3A;409:1B,
401:1A;402:3A;409:1B, 401:1A;402:3A;409:1B,
401:1A;402:3A;409:1B, 401:1A;402:3A;409:1B,
401:1A;402:3A, 401:1A;402:3A, 401:1A;402:3A,
401:1A;402:3A, 401:1A;402:3A, 401:1A;402:3A,
401:1A;402:3A, 401:1A;402:3A, 401:1A;402:3A,
401:1A;402:3A, 401:1A;402:3A, 401:1A;402:3A,
401:1A;402:3A, 401:1A;402:3A, 401:1A;402:3A,
401:1A;402:3A, 401:1A;402:3A, 401:1A;402:3A
/OCM_RE, /OCM_WE, /ROM_CS, OCMADDR [0-21] , OCMDATA [0-15]
[C50D2]
CN400
OCMDATA [0] 1
OCMDATA [1] 3
OCMDATA [2] 5
OCMDATA [3] 7
OCMDATA [4] 9
OCMDATA [5] 11
OCMDATA [6] 13
OCMDATA [7] 15
OCMDATA [8] 17
OCMDATA [9] 19
OCMDATA [10] 21
OCMDATA [11] 23
OCMDATA [12] 25
OCMDATA [13] 27
OCMDATA [14] 29
OCMDATA [15] 31
/ROM_CS 33
/OCM_RE 35
/OCM_WE 37
/RESET 39
41
43
45
47
49
1T
2 OCMADDR [1]
4 OCMADDR [2]
6 OCMADDR [3]
8 OCMADDR [4]
10 OCMADDR [5]
12 OCMADDR [6]
14 OCMADDR [7]
16 OCMADDR [8]
18 OCMADDR [9]
20 OCMADDR [10]
22 OCMADDR [11]
24 OCMADDR [12]
26 OCMADDR [13]
28 OCMADDR [14]
30 OCMADDR [15]
32 OCMADDR [16]
34 OCMADDR [17]
36 OCMADDR [18]
38 OCMADDR [19]
40 OCMADDR [20]
42 OCMADDR [21]
44
46
48
50
2T
+3.3V_I/O
GND

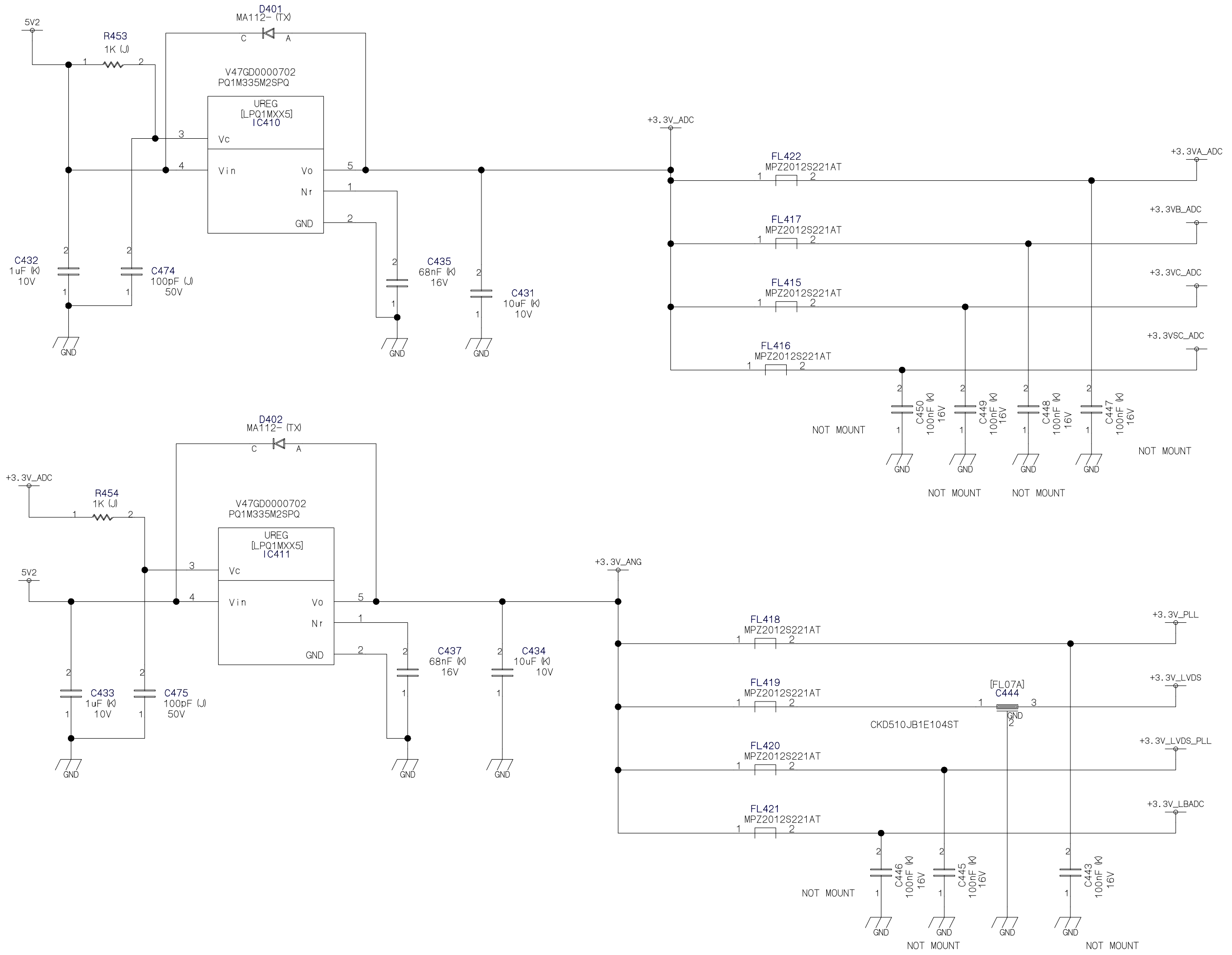
U01AS SIGNAL [403] SRAM MODULE (PE0194)


+3.3V_LBADC
C486
1uF (K)
GND
R493
33K (J)
R491
33K (J)
R490
33K (J)
FL920
MMZ1608S102CT
200:1B
ADC_IN3
200:1B
ADC_IN1
200:1B
ADC_IN2
200:1A
KEY_FGND
FL922
MMZ1608S102CT
FL923
MMZ1608S102CT
C493
2.2nF (K)
KEY3
400:2C
KEY2
400:2C
KEY1
400:2C
KEY_GND
400:1C
C921
100nF (K)
C923
100nF (K)
C924
100nF (K)
FL924
MMZ1608S102CT
old name:
F_GND
W9997
NOT MOUNT
old name:
F_GND
C490
2.2nF (K)
C491
2.2nF (K)
GND
5V2
R471
2.2K (J)
R470
2.2K (J)
C401
100nF (K)
V46GD0001233
M24128-BWMN6TP
EEPROM
[MSEE16K8D]
IC413
400:3E:410:7C
400:3D:410:7B
SDA0
SCL0
W401
NOT MOUNT
ON
ON
SDA
SCL
W402
MOUNT
A0
A1
A2
WP
[Vcc]
[Vss]
GND
GND
5V2
NOT MOUNT
[LBD52XXA]
IC414
CT
VOUT
[VCC]
[GND]
NC
/RESET
400:3D:402:3D:403:3D:410:7A
C402
100nF (K)
NOT MOUNT
C403
47nF (Z)
NOT MOUNT
GND

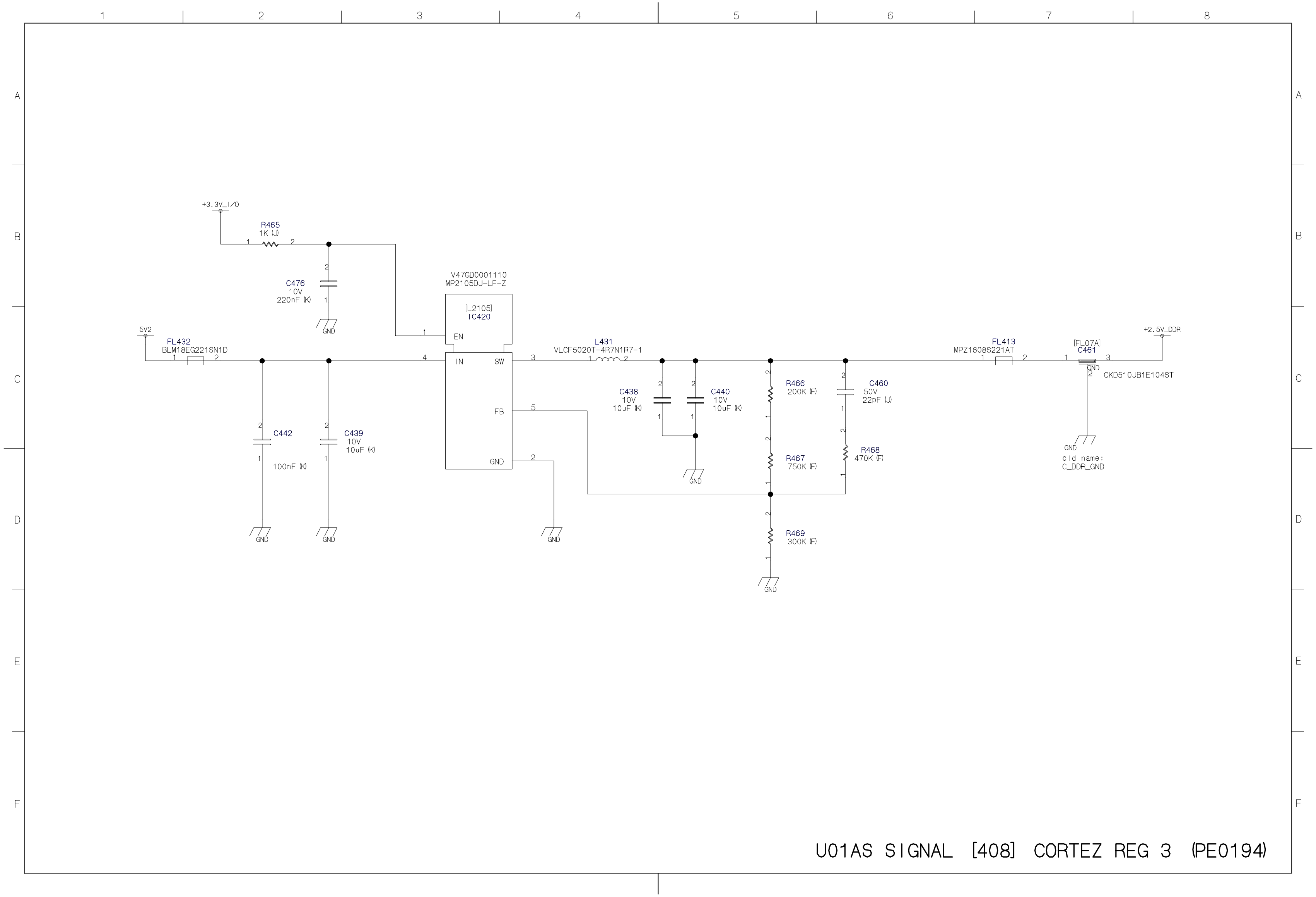
U01AS SIGNAL [404] E2P ROM OTHER (PE0194)


+1.8V_HDMI
+3.3V_HDMI
+3.3V_ANG
R452
1K (J)
C471
50V
47pF (J)
D400
MA112- (TX)
V47GD0000888
PQ033DNA1ZPH
UREG
[LPQXXXDNA]
IC402
VC
VIN
NC
VO
[GND]
5V2
C428
10V
1uF (K)
C427
10V
10uF (K)
D404
[DBS]
FL427
MPZ2012S221AT
FL423
MPZ2012S221AT
+3.3V_I/O
C451
16V
100nF (K)
C458
16V
100nF (K)
R495
R496
R497
R459
Q460
Q461
R460
R461
D406
D407
HDMI_PWRA
200:5F:302:1C:309:3D
HDMI_PWRB
200:5F:302:1D:309:3B
2SC4116-Y (TE85L, F)
5V2
POWER_TV削除し5V2に修正
FL327
MPZ2012S221AT
+3.3V_HDMI_ACC
C415
16V
100nF (K)
C414
16V
100nF (K)
C413
16V
100nF (K)
C412
16V
100nF (K)
C3401
16V
100nF (K)
+2.5V_DDR
R456
1.5K (J)
C462
100nF (K)
16V
FL414
MPZ1608S221AT
old name:
C_DDR_GND
C473
50V
100pF (J)
C429
10V
10uF (K)
R4600
10 (J)
C453
100nF (K)
16V
R4601
2.2K (J)
2SC4116-Y (TE85L, F)
Q462
Q463
R4602
10K (J)
R4603
10K (J)
R450
100K (J)
C436
470pF (J)
50V
V47A00004400
MAX1951ESA+TG075
[L1951]
IC925
IN
LX
VCC
FB
COMP
REF
GND
PGND
C455
100nF (K)
16V
L430
SLF7032T-4R7M1R7-2PF
C441
6.3V
22uF (M)
C459
6.3V
22uF (M)
R451
15K (F)
R455
82K (F)
R457
10K (F)
R458
200 (J)
FL428
MPZ1608S221AT
+1.8V_ADC
FL425
MPZ1608S221AT
+1.8V_DLL
FL426
MPZ1608S221AT
+1.8V_PLL
FL424
MPZ1608S221AT
+1.8V_CORE
[FL07A]
C430
CKD510JB1A105ST
C456
100nF (K)
16V
C457
100nF (K)
16V
C452
100nF (K)
16V
C454
16V
100nF (K)
NOT MOUNT
NOT MOUNT
MOUNT
C480
100nF (K)
C481
100nF (K)
C482
100nF (K)
C483
100nF (K)
16V
GND

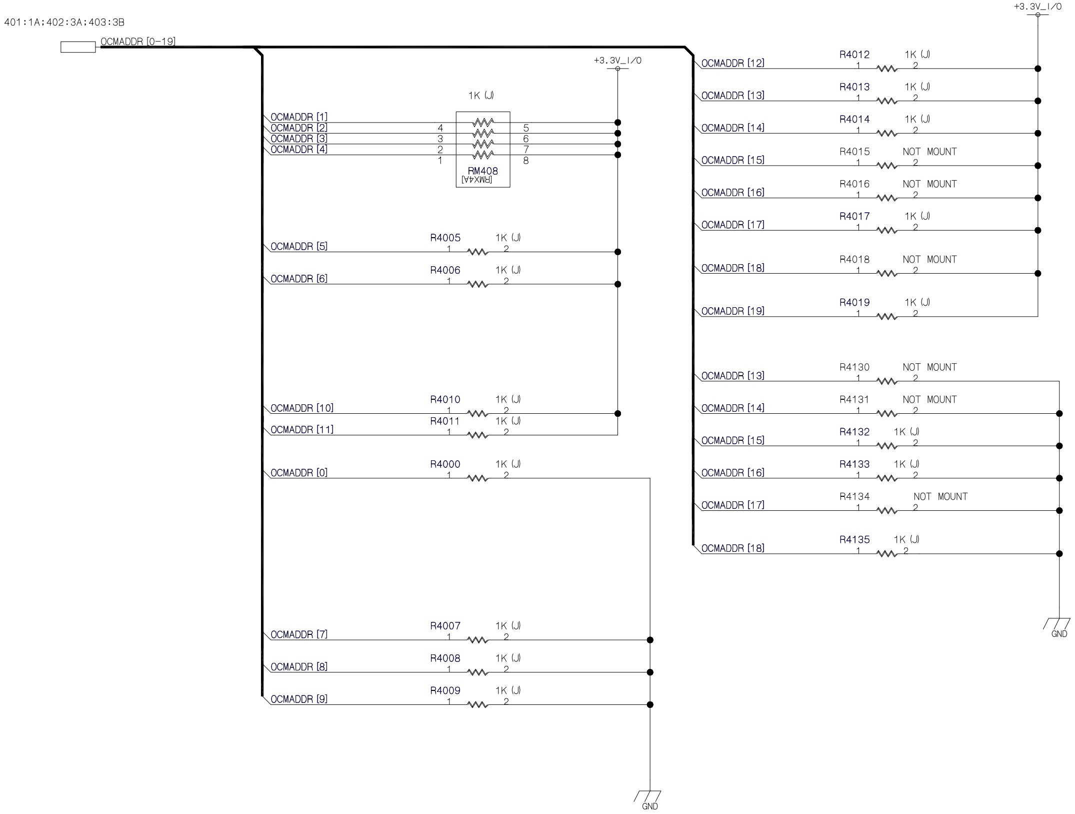
U01AS SIGNAL [406] CORTEZ REG 1 (PE0194)


5V2
R453
1K (J)
D401
MA112- (TX)
C
A
V47GD0000702
PQ1M335M2SPQ
UREG
[LPQ1MXX5]
IC410
Vc
Vin
Vo
Nr
GND
C432
1uF (K)
10V
C474
100pF (J)
50V
C435
68nF (K)
16V
C431
10uF (K)
10V
GND
+3.3V_ADC
FL422
MPZ2012S221AT
+3.3VA_ADC
FL417
MPZ2012S221AT
+3.3VB_ADC
FL415
MPZ2012S221AT
+3.3VC_ADC
FL416
MPZ2012S221AT
+3.3VSC_ADC
C450
100nF (K)
16V
C449
100nF (K)
16V
C448
100nF (K)
16V
C447
100nF (K)
16V
NOT MOUNT
NOT MOUNT
NOT MOUNT
NOT MOUNT
D402
MA112- (TX)
+3.3V_ADC
R454
1K (J)
V47GD0000702
PQ1M335M2SPQ
UREG
[LPQ1MXX5]
IC411
5V2
C433
1uF (K)
10V
C475
100pF (J)
50V
C437
68nF (K)
16V
C434
10uF (K)
10V
+3.3V_ANG
FL418
MPZ2012S221AT
+3.3V_PLL
FL419
MPZ2012S221AT
[FL07A]
C444
CKD510JB1E104ST
+3.3V_LVDS
FL420
MPZ2012S221AT
+3.3V_LVDS_PLL
FL421
MPZ2012S221AT
+3.3V_LBADC
C446
100nF (K)
16V
C445
100nF (K)
16V
C443
100nF (K)
16V
NOT MOUNT
NOT MOUNT
NOT MOUNT

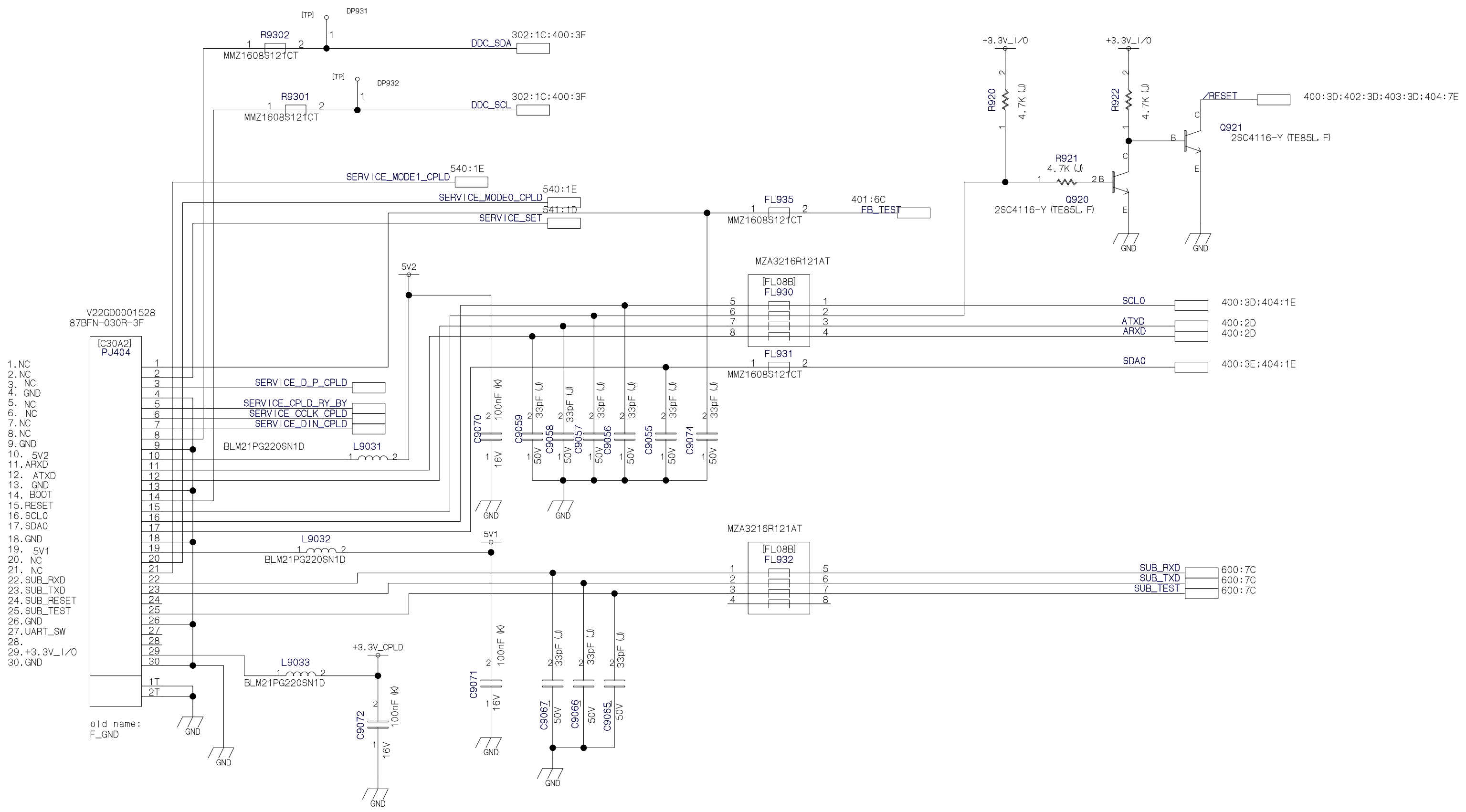
U01AS SIGNAL [407] CORTEZ REG 2 (PE0194)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
+3.3V_I/O
R465
1K (J)
1
2
C476
10V
220nF (K)
2
1
GND
V47GD0001110
MP2105DJ-LF-Z
[L2105]
IC420
1
EN
5V2
FL432
BLM18EG221SN1D
1
2
4
IN
SW
3
FB
5
GND
2
C442
100nF (K)
C439
10V
10uF (K)
GND
GND
GND
L431
VLCF5020T-4R7N1R7-1
1
2
C438
10V
10uF (K)
C440
10V
10uF (K)
GND
R466
200K (F)
R467
750K (F)
R469
300K (F)
GND
C460
50V
22pF (J)
R468
470K (F)
FL413
MPZ1608S221AT
1
2
[FL07A]
C461
1
3
GND
2
CKD510JB1E104ST
+2.5V_DDR
GND
old name:
C_DDR_GND

U01AS SIGNAL [408] CORTEZ REG 3 (PE0194)


401:1A:402:3A:403:3B
OCMADDR [0-19]
+3.3V_I/O
1K (J)
OCMADDR [1]
OCMADDR [2]
OCMADDR [3]
OCMADDR [4]
RM408
[RMX4A]
OCMADDR [5]
R4005 1K (J)
OCMADDR [6]
R4006 1K (J)
OCMADDR [10]
R4010 1K (J)
OCMADDR [11]
R4011 1K (J)
OCMADDR [0]
R4000 1K (J)
OCMADDR [7]
R4007 1K (J)
OCMADDR [8]
R4008 1K (J)
OCMADDR [9]
R4009 1K (J)
GND
+3.3V_I/O
OCMADDR [12]
R4012 1K (J)
OCMADDR [13]
R4013 1K (J)
OCMADDR [14]
R4014 1K (J)
OCMADDR [15]
R4015 NOT MOUNT
OCMADDR [16]
R4016 NOT MOUNT
OCMADDR [17]
R4017 1K (J)
OCMADDR [18]
R4018 NOT MOUNT
OCMADDR [19]
R4019 1K (J)
OCMADDR [13]
R4130 NOT MOUNT
OCMADDR [14]
R4131 NOT MOUNT
OCMADDR [15]
R4132 1K (J)
OCMADDR [16]
R4133 1K (J)
OCMADDR [17]
R4134 NOT MOUNT
OCMADDR [18]
R4135 1K (J)
GND

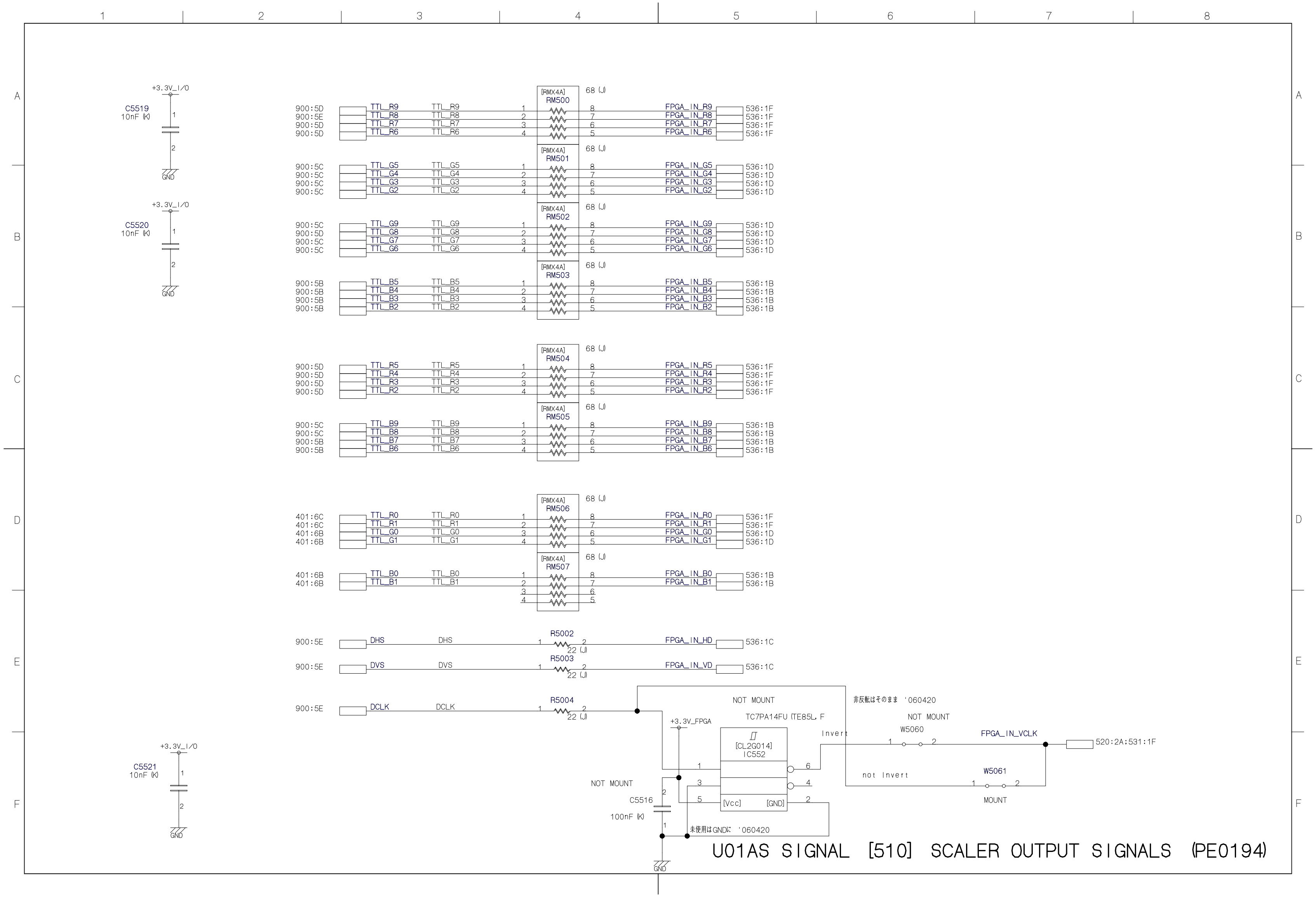
U01AS SIGNAL [409] BOOT CONFIG (PE0194)

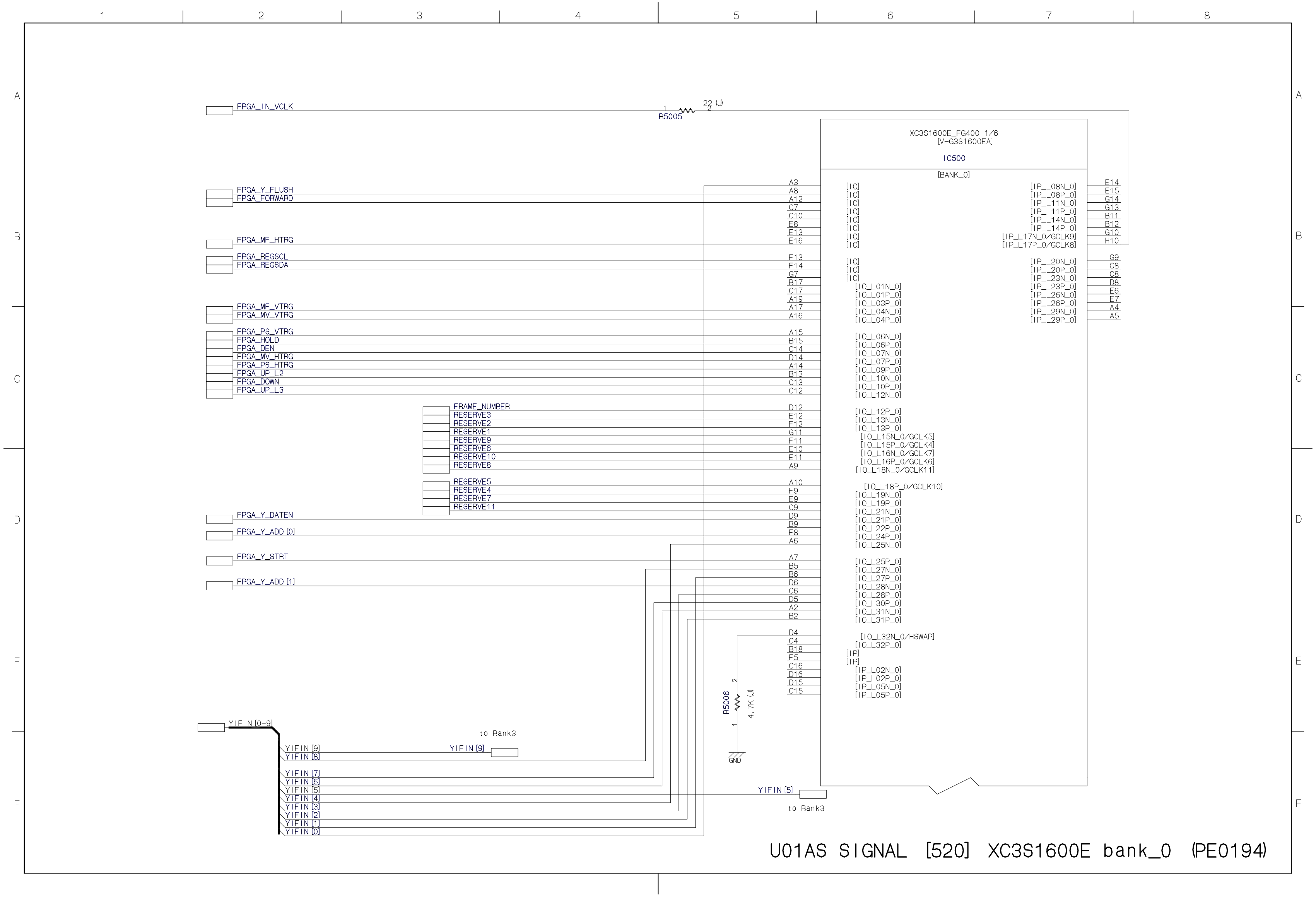


[TP]
DP931
R9302
MMZ1608S121CT
DDC_SDA
302:1C:400:3F
[TP]
DP932
R9301
MMZ1608S121CT
DDC_SCL
302:1C:400:3F
SERVICE_MODE1_CPLD
540:1E
SERVICE_MODE0_CPLD
540:1E
SERVICE_SET
541:1D
FL935
MMZ1608S121CT
401:6C
FB_TEST
+3.3V_I/O
R920
4.7K (J)
R921
4.7K (J)
Q920
2SC4116-Y (TE85L, F)
+3.3V_I/O
R922
4.7K (J)
/RESET
400:3D:402:3D:403:3D:404:7E
Q921
2SC4116-Y (TE85L, F)
GND
GND
5V2
MZA3216R121AT
[FL08B]
FL930
SCL0
400:3D:404:1E
ATXD
400:2D
ARXD
400:2D
FL931
MMZ1608S121CT
SDA0
400:3E:404:1E
V22GD0001528
87BFN-030R-3F
[C30A2]
PJ404
1.NC
2.NC
3. NC
4. GND
5. NC
6. NC
7.NC
8.NC
9.GND
10. 5V2
11.ARXD
12. ATXD
13. GND
14. BOOT
15.RESET
16.SCL0
17.SDA0
18.GND
19. 5V1
20. NC
21. NC
22.SUB_RXD
23.SUB_TXD
24.SUB_RESET
25.SUB_TEST
26.GND
27.UART_SW
28.
29.+3.3V_I/O
30.GND
1T
2T
old name:
F_GND
SERVICE_D_P_CPLD
SERVICE_CPLD_RY_BY
SERVICE_CCLK_CPLD
SERVICE_DIN_CPLD
BLM21PG220SN1D
L9031
C9070
100nF (K)
16V
C9059
C9058
C9057
C9056
C9055
C9074
33pF (J)
50V
GND
GND
L9032
BLM21PG220SN1D
5V1
MZA3216R121AT
[FL08B]
FL932
SUB_RXD
SUB_TXD
SUB_TEST
600:7C
600:7C
600:7C
L9033
BLM21PG220SN1D
+3.3V_CPLD
C9072
100nF (K)
16V
C9071
100nF (K)
16V
C9067
C9066
C9065
33pF (J)
50V
GND

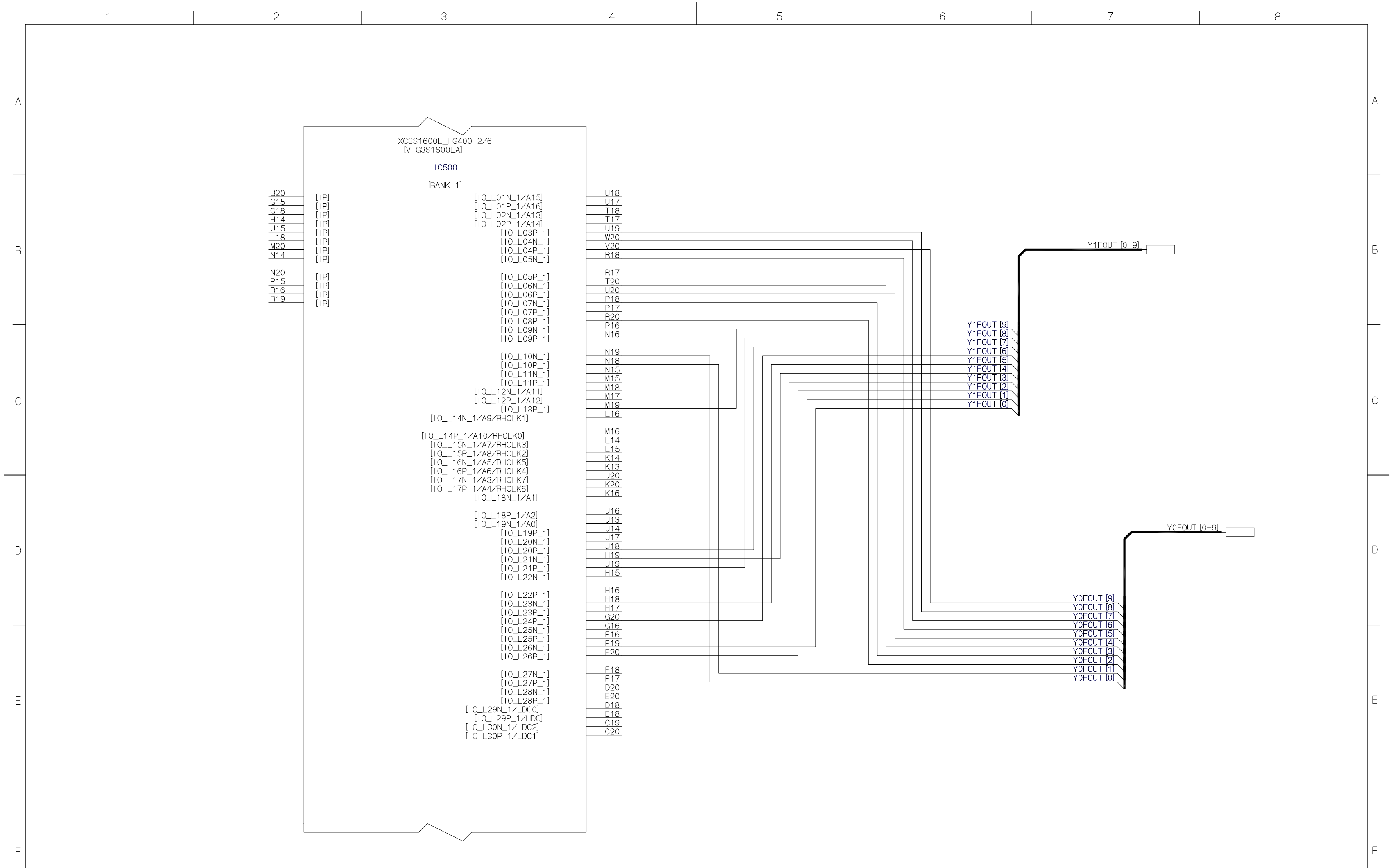
U01AS SIGNAL [410] SERVICE CONNECTOR (PE0194)

U01AS SIGNAL [510] SCALER OUTPUT SIGNALS (PE0194)

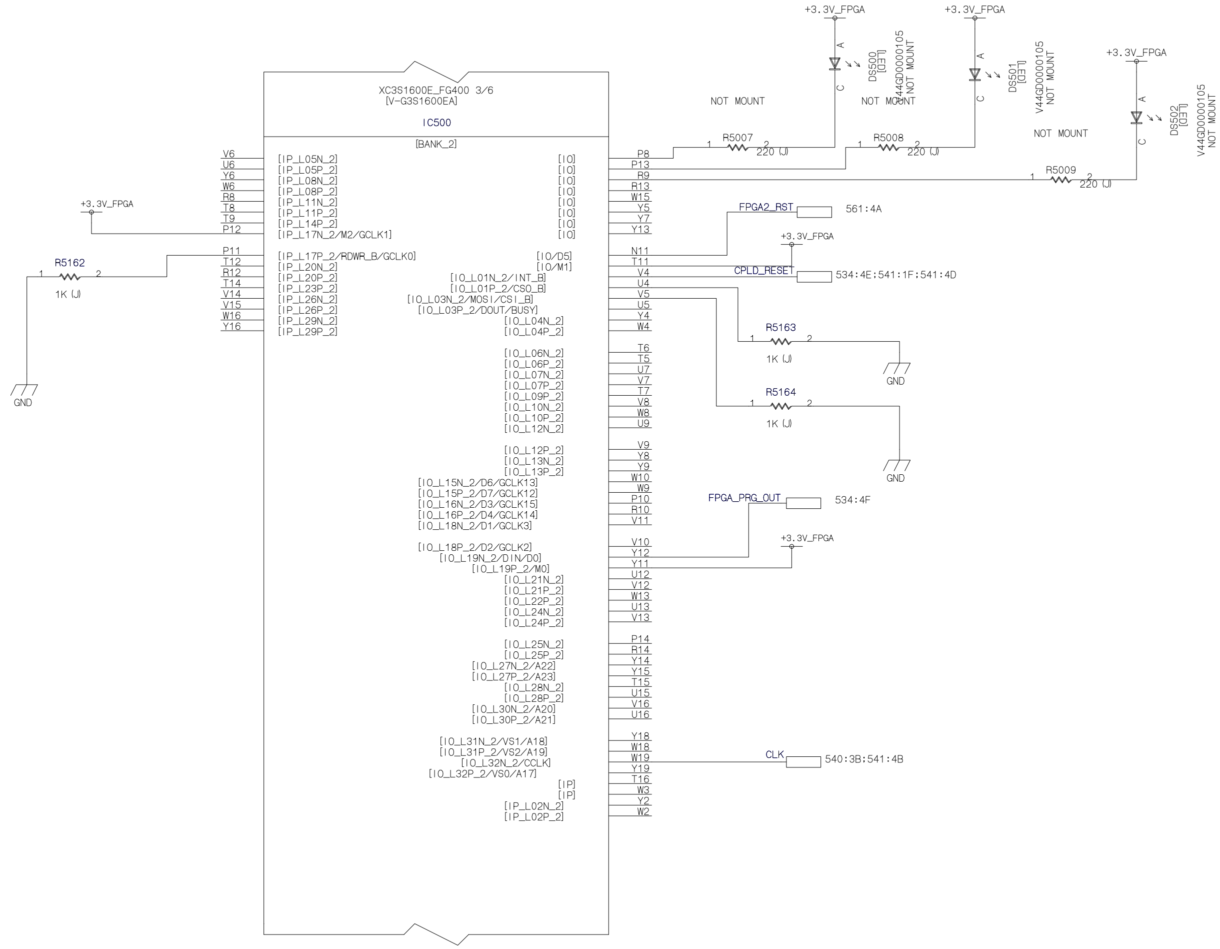

1
2
3
4
5
6
7
8
A
B
C
D
E
F
+3.3V_I/O
C5519
10nF (K)
C5520
10nF (K)
C5521
10nF (K)
GND
[RMX4A]
RM500
RM501
RM502
RM503
RM504
RM505
RM506
RM507
68 (J)
900:5D
900:5E
900:5C
900:5B
401:6C
401:6B
TTL_R9
TTL_R8
TTL_R7
TTL_R6
TTL_G5
TTL_G4
TTL_G3
TTL_G2
TTL_G9
TTL_G8
TTL_G7
TTL_G6
TTL_B5
TTL_B4
TTL_B3
TTL_B2
TTL_R5
TTL_R4
TTL_R3
TTL_R2
TTL_B9
TTL_B8
TTL_B7
TTL_B6
TTL_R0
TTL_R1
TTL_G0
TTL_G1
TTL_B0
TTL_B1
FPGA_IN_R9
FPGA_IN_R8
FPGA_IN_R7
FPGA_IN_R6
FPGA_IN_G5
FPGA_IN_G4
FPGA_IN_G3
FPGA_IN_G2
FPGA_IN_G9
FPGA_IN_G8
FPGA_IN_G7
FPGA_IN_G6
FPGA_IN_B5
FPGA_IN_B4
FPGA_IN_B3
FPGA_IN_B2
FPGA_IN_R5
FPGA_IN_R4
FPGA_IN_R3
FPGA_IN_R2
FPGA_IN_B9
FPGA_IN_B8
FPGA_IN_B7
FPGA_IN_B6
FPGA_IN_R0
FPGA_IN_R1
FPGA_IN_G0
FPGA_IN_G1
FPGA_IN_B0
FPGA_IN_B1
536:1F
536:1D
536:1B
536:1C
DHS
DVS
DCLK
R5002
R5003
R5004
22 (J)
FPGA_IN_HD
FPGA_IN_VD
NOT MOUNT
TC7PA14FU (TE85L, F
+3.3V_FPGA
[CL2G014]
IC552
[Vcc]
[GND]
C5516
100nF (K)
未使用はGNDに '060420
非反転はそのまま '060420
Invert
not Invert
W5060
W5061
MOUNT
FPGA_IN_VCLK
520:2A;531:1F


1
2
3
4
5
6
7
8
A
B
C
D
E
F
FPGA_IN_VCLK
1
R5005
22 (J)
2
XC3S1600E_FG400 1/6
[V-G3S1600EA]
IC500
[BANK_0]
FPGA_Y_FLUSH
FPGA_FORWARD
FPGA_MF_HTRG
FPGA_REGSCL
FPGA_REGSDA
FPGA_MF_VTRG
FPGA_MV_VTRG
FPGA_PS_VTRG
FPGA_HOLD
FPGA_DEN
FPGA_MV_HTRG
FPGA_PS_HTRG
FPGA_UP_L2
FPGA_DOWN
FPGA_UP_L3
FRAME_NUMBER
RESERVE3
RESERVE2
RESERVE1
RESERVE9
RESERVE6
RESERVE10
RESERVE8
RESERVE5
RESERVE4
RESERVE7
RESERVE11
FPGA_Y_DATEN
FPGA_Y_ADD [0]
FPGA_Y_STRT
FPGA_Y_ADD [1]
A3 [IO]
A8 [IO]
A12 [IO]
C7 [IO]
C10 [IO]
E8 [IO]
E13 [IO]
E16 [IO]
F13 [IO]
F14 [IO]
G7 [IO]
B17 [IO_L01N_0]
C17 [IO_L01P_0]
A19 [IO_L03P_0]
A17 [IO_L04N_0]
A16 [IO_L04P_0]
A15 [IO_L06N_0]
B15 [IO_L06P_0]
C14 [IO_L07N_0]
D14 [IO_L07P_0]
A14 [IO_L09P_0]
B13 [IO_L10N_0]
C13 [IO_L10P_0]
C12 [IO_L12N_0]
D12 [IO_L12P_0]
E12 [IO_L13N_0]
F12 [IO_L13P_0]
G11 [IO_L15N_0/GCLK5]
F11 [IO_L15P_0/GCLK4]
E10 [IO_L16N_0/GCLK7]
E11 [IO_L16P_0/GCLK6]
A9 [IO_L18N_0/GCLK11]
A10 [IO_L18P_0/GCLK10]
F9 [IO_L19N_0]
E9 [IO_L19P_0]
C9 [IO_L21N_0]
D9 [IO_L21P_0]
B9 [IO_L22P_0]
F8 [IO_L24P_0]
A6 [IO_L25N_0]
A7 [IO_L25P_0]
B5 [IO_L27N_0]
B6 [IO_L27P_0]
D6 [IO_L28N_0]
C6 [IO_L28P_0]
D5 [IO_L30P_0]
A2 [IO_L31N_0]
B2 [IO_L31P_0]
D4 [IO_L32N_0/HSWAP]
C4 [IO_L32P_0]
B18 [IP]
E5 [IP]
C16 [IP_L02N_0]
D16 [IP_L02P_0]
D15 [IP_L05N_0]
C15 [IP_L05P_0]
[IP_L08N_0] E14
[IP_L08P_0] E15
[IP_L11N_0] G14
[IP_L11P_0] G13
[IP_L14N_0] B11
[IP_L14P_0] B12
[IP_L17N_0/GCLK9] G10
[IP_L17P_0/GCLK8] H10
[IP_L20N_0] G9
[IP_L20P_0] G8
[IP_L23N_0] C8
[IP_L23P_0] D8
[IP_L26N_0] E6
[IP_L26P_0] E7
[IP_L29N_0] A4
[IP_L29P_0] A5
2
R5006
4.7K (J)
1
GND
YIFIN [0-9]
YIFIN [9]
YIFIN [8]
YIFIN [9]
to Bank3
YIFIN [7]
YIFIN [6]
YIFIN [5]
YIFIN [4]
YIFIN [3]
YIFIN [2]
YIFIN [1]
YIFIN [0]
YIFIN [5]
to Bank3

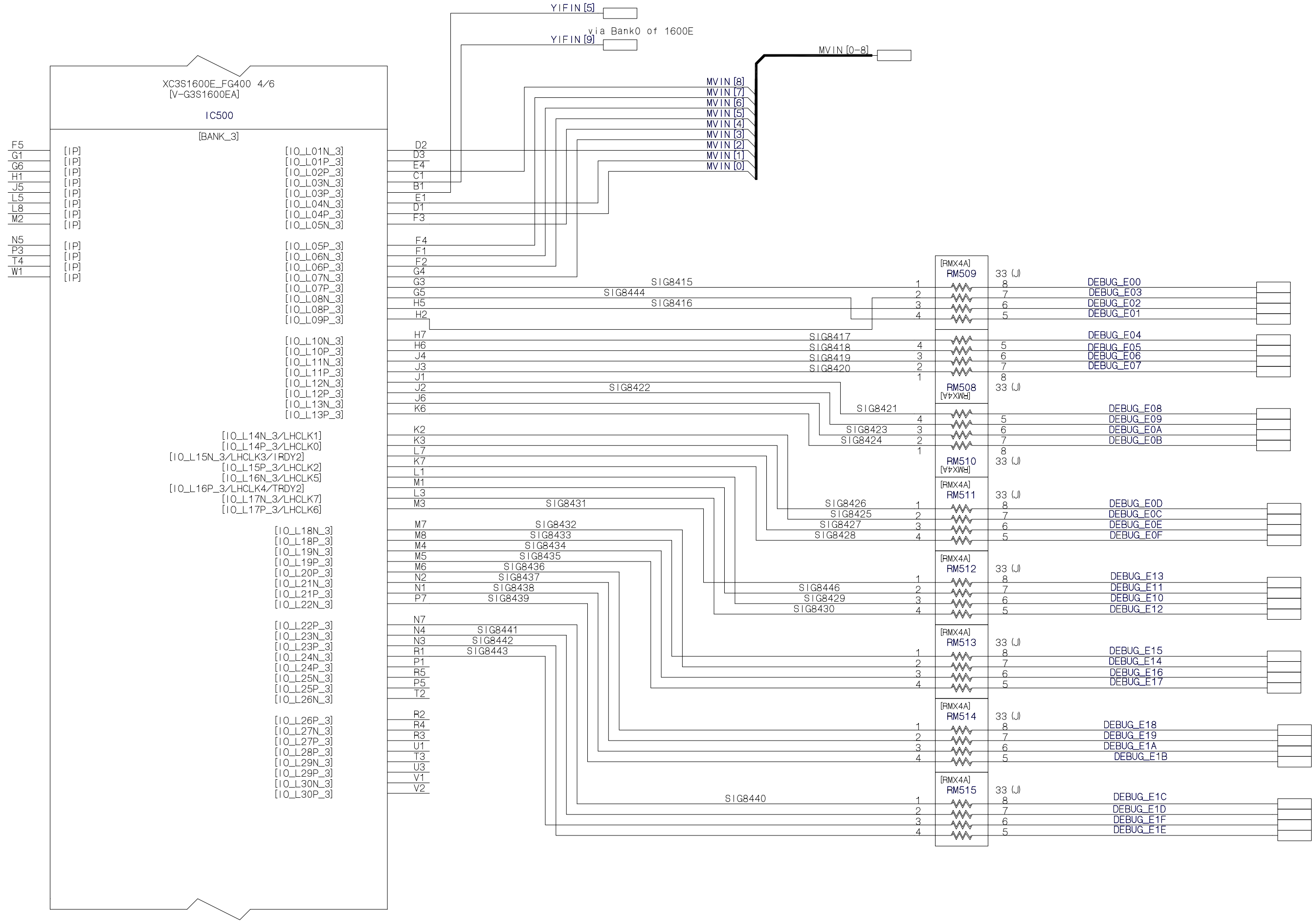
U01AS SIGNAL [520] XC3S1600E bank_0 (PE0194)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
XC3S1600E_FG400 2/6
[V-G3S1600EA]
IC500
[BANK_1]
B20 [IP]
G15 [IP]
G18 [IP]
H14 [IP]
J15 [IP]
L18 [IP]
M20 [IP]
N14 [IP]
N20 [IP]
P15 [IP]
R16 [IP]
R19 [IP]
[IO_L01N_1/A15] U18
[IO_L01P_1/A16] U17
[IO_L02N_1/A13] T18
[IO_L02P_1/A14] T17
[IO_L03P_1] U19
[IO_L04N_1] W20
[IO_L04P_1] V20
[IO_L05N_1] R18
[IO_L05P_1] R17
[IO_L06N_1] T20
[IO_L06P_1] U20
[IO_L07N_1] P18
[IO_L07P_1] P17
[IO_L08P_1] R20
[IO_L09N_1] P16
[IO_L09P_1] N16
[IO_L10N_1] N19
[IO_L10P_1] N18
[IO_L11N_1] N15
[IO_L11P_1] M15
[IO_L12N_1/A11] M18
[IO_L12P_1/A12] M17
[IO_L13P_1] M19
[IO_L14N_1/A9/RHCLK1] L16
[IO_L14P_1/A10/RHCLK0] M16
[IO_L15N_1/A7/RHCLK3] L14
[IO_L15P_1/A8/RHCLK2] L15
[IO_L16N_1/A5/RHCLK5] K14
[IO_L16P_1/A6/RHCLK4] K13
[IO_L17N_1/A3/RHCLK7] J20
[IO_L17P_1/A4/RHCLK6] K20
[IO_L18N_1/A1] K16
[IO_L18P_1/A2] J16
[IO_L19N_1/A0] J13
[IO_L19P_1] J14
[IO_L20N_1] J17
[IO_L20P_1] J18
[IO_L21N_1] H19
[IO_L21P_1] J19
[IO_L22N_1] H15
[IO_L22P_1] H16
[IO_L23N_1] H18
[IO_L23P_1] H17
[IO_L24P_1] G20
[IO_L25N_1] G16
[IO_L25P_1] F16
[IO_L26N_1] F19
[IO_L26P_1] F20
[IO_L27N_1] F18
[IO_L27P_1] F17
[IO_L28N_1] D20
[IO_L28P_1] E20
[IO_L29N_1/LDC0] D18
[IO_L29P_1/HDC] E18
[IO_L30N_1/LDC2] C19
[IO_L30P_1/LDC1] C20
Y1FOUT [0-9]
Y1FOUT [9]
Y1FOUT [8]
Y1FOUT [7]
Y1FOUT [6]
Y1FOUT [5]
Y1FOUT [4]
Y1FOUT [3]
Y1FOUT [2]
Y1FOUT [1]
Y1FOUT [0]
Y0FOUT [0-9]
Y0FOUT [9]
Y0FOUT [8]
Y0FOUT [7]
Y0FOUT [6]
Y0FOUT [5]
Y0FOUT [4]
Y0FOUT [3]
Y0FOUT [2]
Y0FOUT [1]
Y0FOUT [0]

U01AS SIGNAL [521] XC3S1600E bank_1 (PE0194)

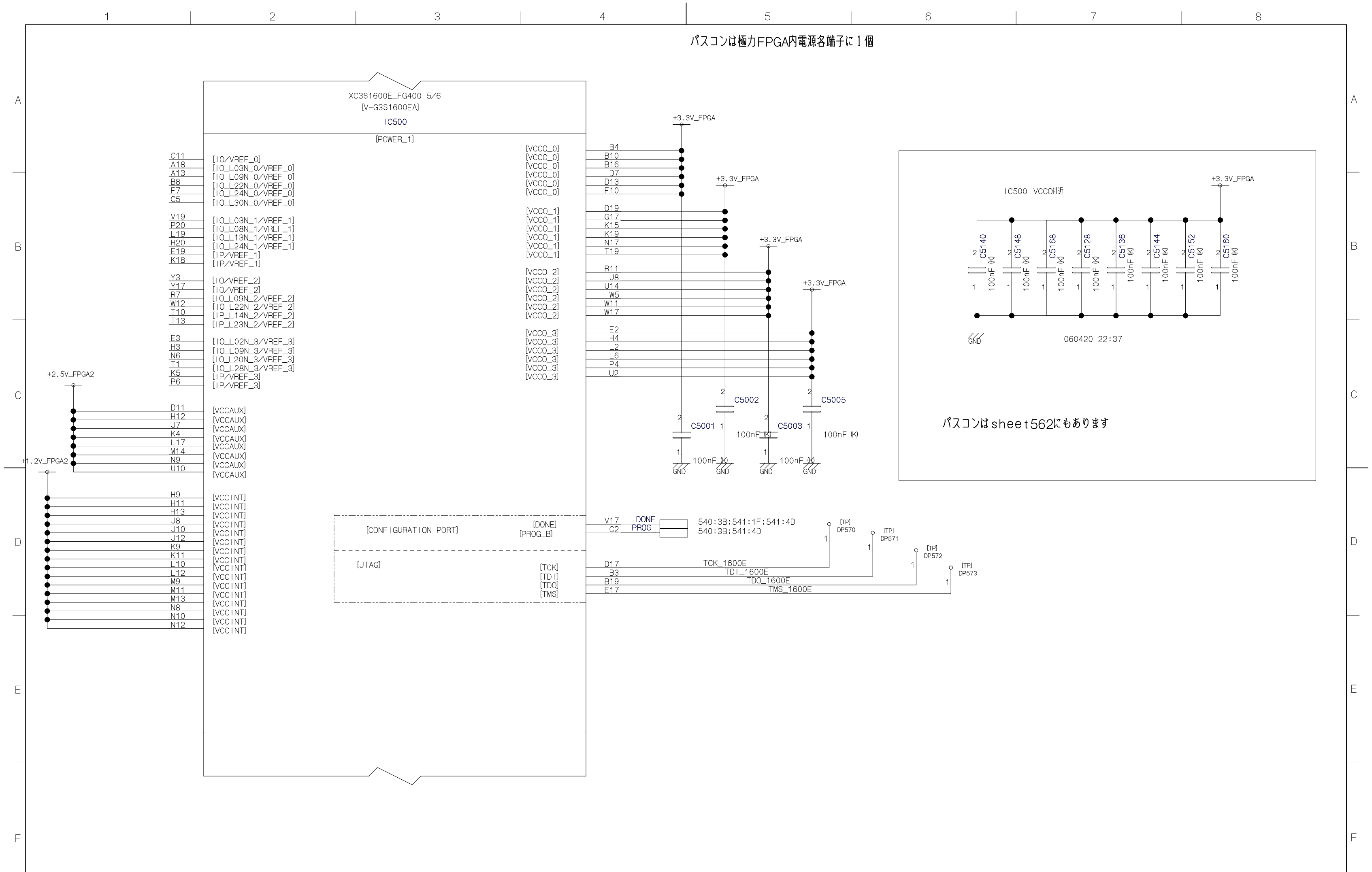

XC3S1600E_FG400 3/6
[V-G3S1600EA]
IC500
[BANK_2]
+3.3V_FPGA
DS500 [GET] V44GD0000105 NOT MOUNT
DS501 [GET] V44GD0000105 NOT MOUNT
DS502 [GET] V44GD0000105 NOT MOUNT
NOT MOUNT
R5007 220 (J)
R5008 220 (J)
R5009 220 (J)
FPGA2_RST 561:4A
CPLD_RESET 534:4E:541:1F:541:4D
R5163 1K (J)
R5164 1K (J)
GND
FPGA_PRG_OUT 534:4F
CLK 540:3B:541:4B
R5162 1K (J)
V6 [IP_L05N_2]
U6 [IP_L05P_2]
Y6 [IP_L08N_2]
W6 [IP_L08P_2]
R8 [IP_L11N_2]
T8 [IP_L11P_2]
T9 [IP_L14P_2]
P12 [IP_L17N_2/M2/GCLK1]
P11 [IP_L17P_2/RDWR_B/GCLK0]
T12 [IP_L20N_2]
R12 [IP_L20P_2]
T14 [IP_L23P_2]
V14 [IP_L26N_2]
V15 [IP_L26P_2]
W16 [IP_L29N_2]
Y16 [IP_L29P_2]
[IO] P8
[IO] P13
[IO] R9
[IO] R13
[IO] W15
[IO] Y5
[IO] Y7
[IO] Y13
[IO/D5] N11
[IO/M1] T11
[IO_L01N_2/INT_B] V4
[IO_L01P_2/CSO_B] U4
[IO_L03N_2/MOSI/CSI_B] V5
[IO_L03P_2/DOUT/BUSY] U5
[IO_L04N_2] Y4
[IO_L04P_2] W4
[IO_L06N_2] T6
[IO_L06P_2] T5
[IO_L07N_2] U7
[IO_L07P_2] V7
[IO_L09P_2] T7
[IO_L10N_2] V8
[IO_L10P_2] W8
[IO_L12N_2] U9
[IO_L12P_2] V9
[IO_L13N_2] Y8
[IO_L13P_2] Y9
[IO_L15N_2/D6/GCLK13] W10
[IO_L15P_2/D7/GCLK12] W9
[IO_L16N_2/D3/GCLK15] P10
[IO_L16P_2/D4/GCLK14] R10
[IO_L18N_2/D1/GCLK3] V11
[IO_L18P_2/D2/GCLK2] V10
[IO_L19N_2/DIN/D0] Y12
[IO_L19P_2/M0] Y11
[IO_L21N_2] U12
[IO_L21P_2] V12
[IO_L22P_2] W13
[IO_L24N_2] U13
[IO_L24P_2] V13
[IO_L25N_2] P14
[IO_L25P_2] R14
[IO_L27N_2/A22] Y14
[IO_L27P_2/A23] Y15
[IO_L28N_2] T15
[IO_L28P_2] U15
[IO_L30N_2/A20] V16
[IO_L30P_2/A21] U16
[IO_L31N_2/VS1/A18] Y18
[IO_L31P_2/VS2/A19] W18
[IO_L32N_2/CCLK] W19
[IO_L32P_2/VS0/A17] Y19
[IP] T16
[IP] W3
[IP_L02N_2] Y2
[IP_L02P_2] W2
1
2
A
C

U01AS SIGNAL [522] XC3S1600E bank_2 (PE0194)


YIFIN [5]
via Bank0 of 1600E
YIFIN [9]
MVIN [0-8]
MVIN [8]
MVIN [7]
MVIN [6]
MVIN [5]
MVIN [4]
MVIN [3]
MVIN [2]
MVIN [1]
MVIN [0]
XC3S1600E_FG400 4/6
[V-G3S1600EA]
IC500
[BANK_3]
F5
G1
G6
H1
J5
L5
L8
M2
N5
P3
T4
W1
[IP]
[IO_L01N_3]
[IO_L01P_3]
[IO_L02P_3]
[IO_L03N_3]
[IO_L03P_3]
[IO_L04N_3]
[IO_L04P_3]
[IO_L05N_3]
[IO_L05P_3]
[IO_L06N_3]
[IO_L06P_3]
[IO_L07N_3]
[IO_L07P_3]
[IO_L08N_3]
[IO_L08P_3]
[IO_L09P_3]
[IO_L10N_3]
[IO_L10P_3]
[IO_L11N_3]
[IO_L11P_3]
[IO_L12N_3]
[IO_L12P_3]
[IO_L13N_3]
[IO_L13P_3]
[IO_L14N_3/LHCLK1]
[IO_L14P_3/LHCLK0]
[IO_L15N_3/LHCLK3/IRDY2]
[IO_L15P_3/LHCLK2]
[IO_L16N_3/LHCLK5]
[IO_L16P_3/LHCLK4/TRDY2]
[IO_L17N_3/LHCLK7]
[IO_L17P_3/LHCLK6]
[IO_L18N_3]
[IO_L18P_3]
[IO_L19N_3]
[IO_L19P_3]
[IO_L20P_3]
[IO_L21N_3]
[IO_L21P_3]
[IO_L22N_3]
[IO_L22P_3]
[IO_L23N_3]
[IO_L23P_3]
[IO_L24N_3]
[IO_L24P_3]
[IO_L25N_3]
[IO_L25P_3]
[IO_L26N_3]
[IO_L26P_3]
[IO_L27N_3]
[IO_L27P_3]
[IO_L28P_3]
[IO_L29N_3]
[IO_L29P_3]
[IO_L30N_3]
[IO_L30P_3]
D2
D3
E4
C1
B1
E1
D1
F3
F4
F1
F2
G4
G3
G5
H5
H2
H7
H6
J4
J3
J1
J2
J6
K6
K2
K3
L7
K7
L1
M1
L3
M3
M7
M8
M4
M5
M6
N2
N1
P7
N7
N4
N3
R1
P1
R5
P5
T2
R2
R4
R3
U1
T3
U3
V1
V2
SIG8415
SIG8444
SIG8416
SIG8417
SIG8418
SIG8419
SIG8420
SIG8422
SIG8421
SIG8423
SIG8424
SIG8431
SIG8426
SIG8425
SIG8427
SIG8428
SIG8432
SIG8433
SIG8434
SIG8435
SIG8436
SIG8437
SIG8438
SIG8439
SIG8446
SIG8429
SIG8430
SIG8441
SIG8442
SIG8443
SIG8440
[RMX4A]
RM509
33 (J)
DEBUG_E00
DEBUG_E03
DEBUG_E02
DEBUG_E01
DEBUG_E04
DEBUG_E05
DEBUG_E06
DEBUG_E07
RM508
[RMX4A]
33 (J)
DEBUG_E08
DEBUG_E09
DEBUG_E0A
DEBUG_E0B
RM510
[RMX4A]
33 (J)
[RMX4A]
RM511
33 (J)
DEBUG_E0D
DEBUG_E0C
DEBUG_E0E
DEBUG_E0F
[RMX4A]
RM512
33 (J)
DEBUG_E13
DEBUG_E11
DEBUG_E10
DEBUG_E12
[RMX4A]
RM513
33 (J)
DEBUG_E15
DEBUG_E14
DEBUG_E16
DEBUG_E17
[RMX4A]
RM514
33 (J)
DEBUG_E18
DEBUG_E19
DEBUG_E1A
DEBUG_E1B
[RMX4A]
RM515
33 (J)
DEBUG_E1C
DEBUG_E1D
DEBUG_E1F
DEBUG_E1E
1
2
3
4
5
6
7
8

U01AS SIGNAL [523] XC3S1600E bank_3 (PE0194)

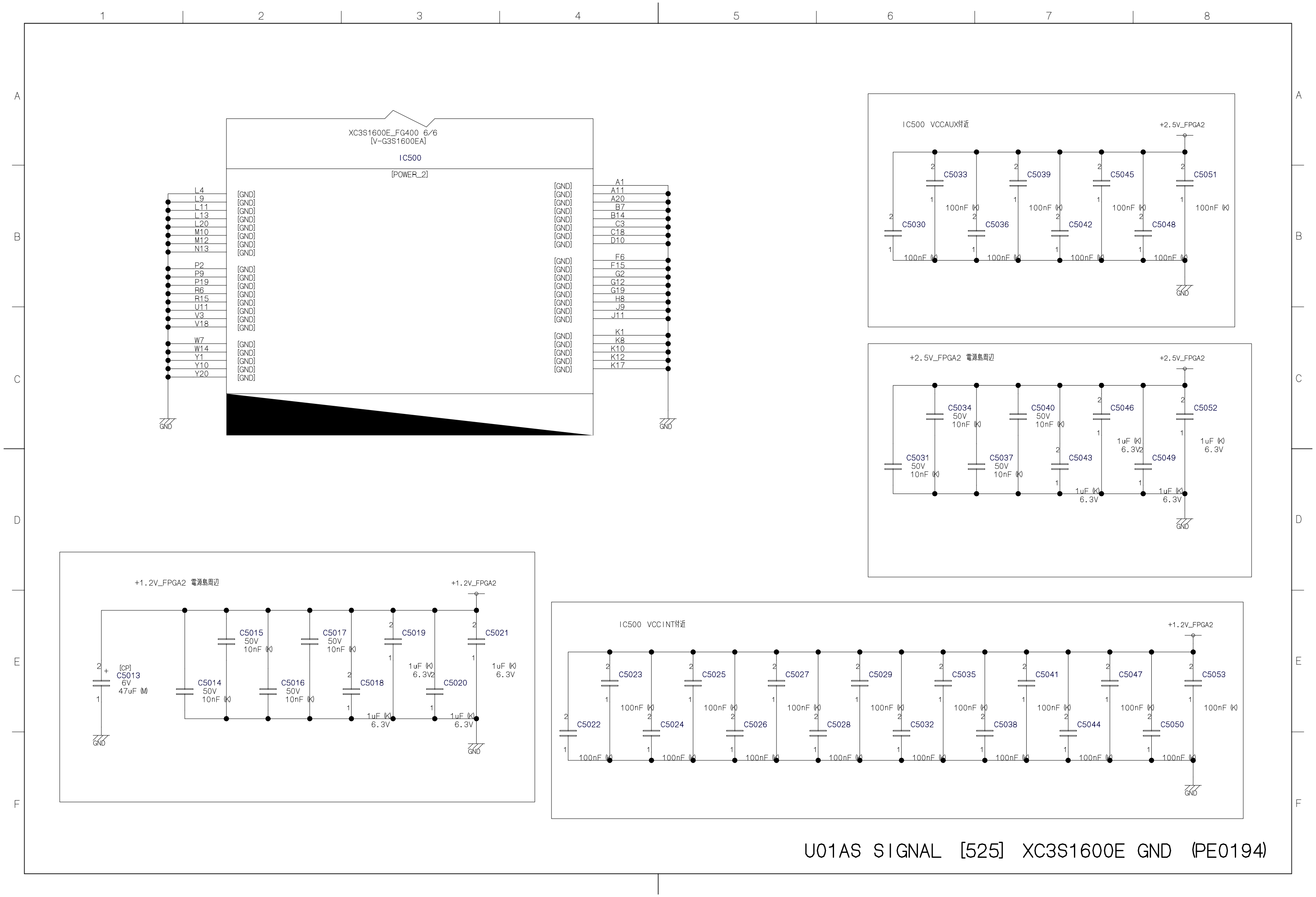
パスコンは極力FPGA内電源各端子に１個



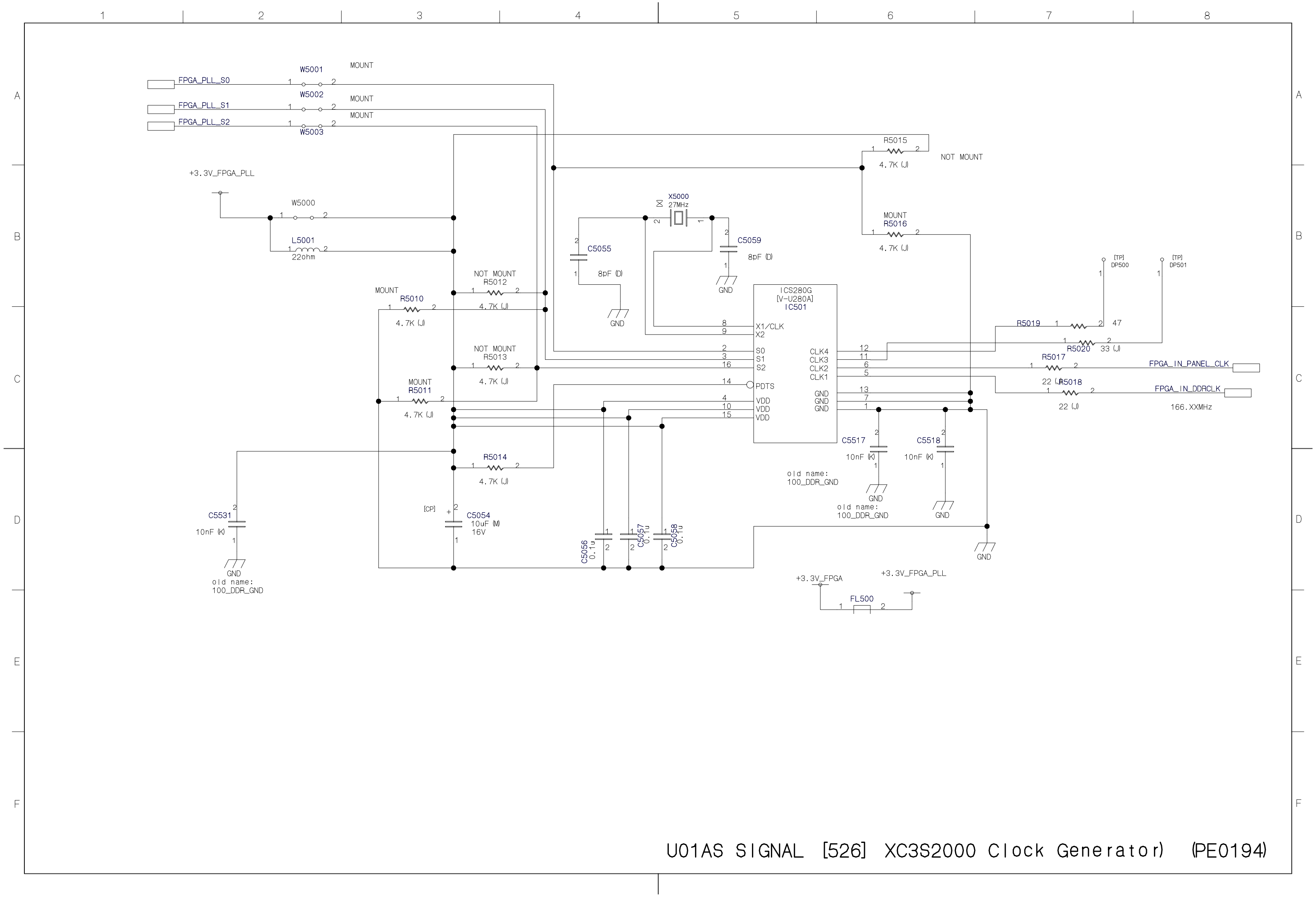
1
2
3
4
5
6
7
8
A
B
C
D
E
F
XC3S1600E_FG400 5/6
[V-G3S1600EA]
IC500
[POWER_1]
C11 [IO/VREF_0]
A18 [IO_L03N_0/VREF_0]
A13 [IO_L09N_0/VREF_0]
B8 [IO_L22N_0/VREF_0]
F7 [IO_L24N_0/VREF_0]
C5 [IO_L30N_0/VREF_0]
V19 [IO_L03N_1/VREF_1]
P20 [IO_L08N_1/VREF_1]
L19 [IO_L13N_1/VREF_1]
H20 [IO_L24N_1/VREF_1]
E19 [IP/VREF_1]
K18 [IP/VREF_1]
Y3 [IO/VREF_2]
Y17 [IO/VREF_2]
R7 [IO_L09N_2/VREF_2]
W12 [IO_L22N_2/VREF_2]
T10 [IP_L14N_2/VREF_2]
T13 [IP_L23N_2/VREF_2]
E3 [IO_L02N_3/VREF_3]
H3 [IO_L09N_3/VREF_3]
N6 [IO_L20N_3/VREF_3]
T1 [IO_L28N_3/VREF_3]
K5 [IP/VREF_3]
P6 [IP/VREF_3]
+2.5V_FPGA2
D11 H12 J7 K4 L17 M14 N9 U10 [VCCAUX]
+1.2V_FPGA2
H9 H11 H13 J8 J10 J12 K9 K11 L10 L12 M9 M11 M13 N8 N10 N12 [VCCINT]
+3.3V_FPGA
[VCCO_0] B4 B10 B16 D7 D13 F10
[VCCO_1] D19 G17 K15 K19 N17 T19
[VCCO_2] R11 U8 U14 W5 W11 W17
[VCCO_3] E2 H4 L2 L6 P4 U2
C5001 100nF (K)
C5002 100nF (K)
C5003 100nF (K)
C5005 100nF (K)
GND
[CONFIGURATION PORT]
[DONE] V17 DONE
[PROG_B] C2 PROG
540:3B:541:1F:541:4D
540:3B:541:4D
[JTAG]
[TCK] D17 TCK_1600E
[TDI] B3 TDI_1600E
[TDO] B19 TDO_1600E
[TMS] E17 TMS_1600E
[TP] DP570
[TP] DP571
[TP] DP572
[TP] DP573
IC500 VCCO付近
+3.3V_FPGA
C5140 C5148 C5168 C5128 C5136 C5144 C5152 C5160
100nF (K)
GND
060420 22:37

パスコンはsheet562にもあります

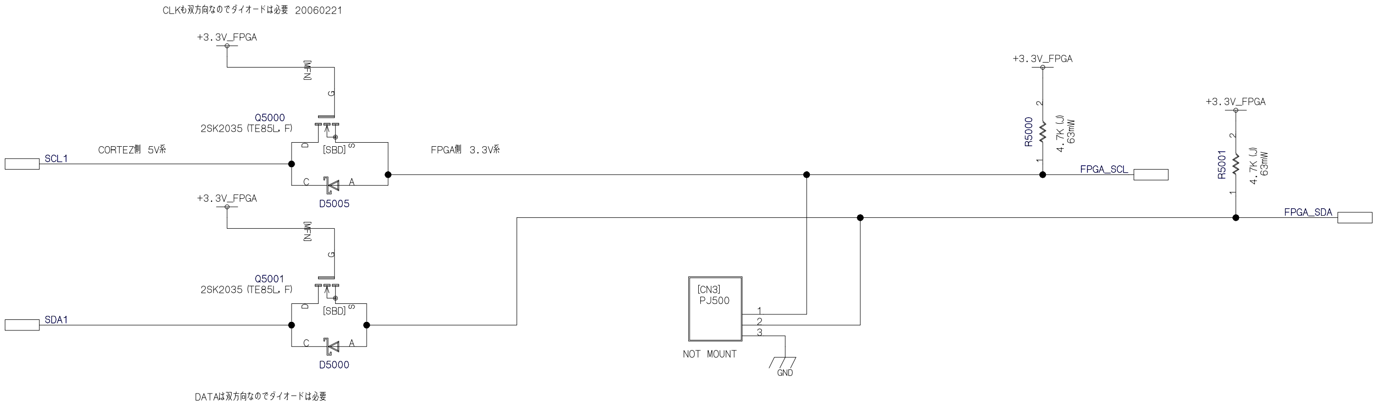
U01AS SIGNAL [524] XC3S1600E POWER and CONFIGURATION (PE0194)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
XC3S1600E_FG400 6/6
[V-G3S1600EA]
IC500
[POWER_2]
L4
L9
L11
L13
L20
M10
M12
N13
P2
P9
P19
R6
R15
U11
V3
V18
W7
W14
Y1
Y10
Y20
[GND]
A1
A11
A20
B7
B14
C3
C18
D10
F6
F15
G2
G12
G19
H8
J9
J11
K1
K8
K10
K12
K17
GND
IC500 VCCAUX付近
+2.5V_FPGA2
C5030
C5033
C5036
C5039
C5042
C5045
C5048
C5051
100nF (K)
+2.5V_FPGA2 電源島周辺
+2.5V_FPGA2
C5031
50V
10nF (K)
C5034
50V
10nF (K)
C5037
50V
10nF (K)
C5040
50V
10nF (K)
C5043
1uF (K)
6.3V
C5046
1uF (K)
6.3V
C5049
1uF (K)
6.3V
C5052
1uF (K)
6.3V
+1.2V_FPGA2 電源島周辺
+1.2V_FPGA2
[CP]
C5013
6V
47uF (M)
C5014
50V
10nF (K)
C5015
50V
10nF (K)
C5016
50V
10nF (K)
C5017
50V
10nF (K)
C5018
1uF (K)
6.3V
C5019
1uF (K)
6.3V
C5020
1uF (K)
6.3V
C5021
1uF (K)
6.3V
IC500 VCCINT付近
+1.2V_FPGA2
C5022
C5023
C5024
C5025
C5026
C5027
C5028
C5029
C5032
C5035
C5038
C5041
C5044
C5047
C5050
C5053
100nF (K)

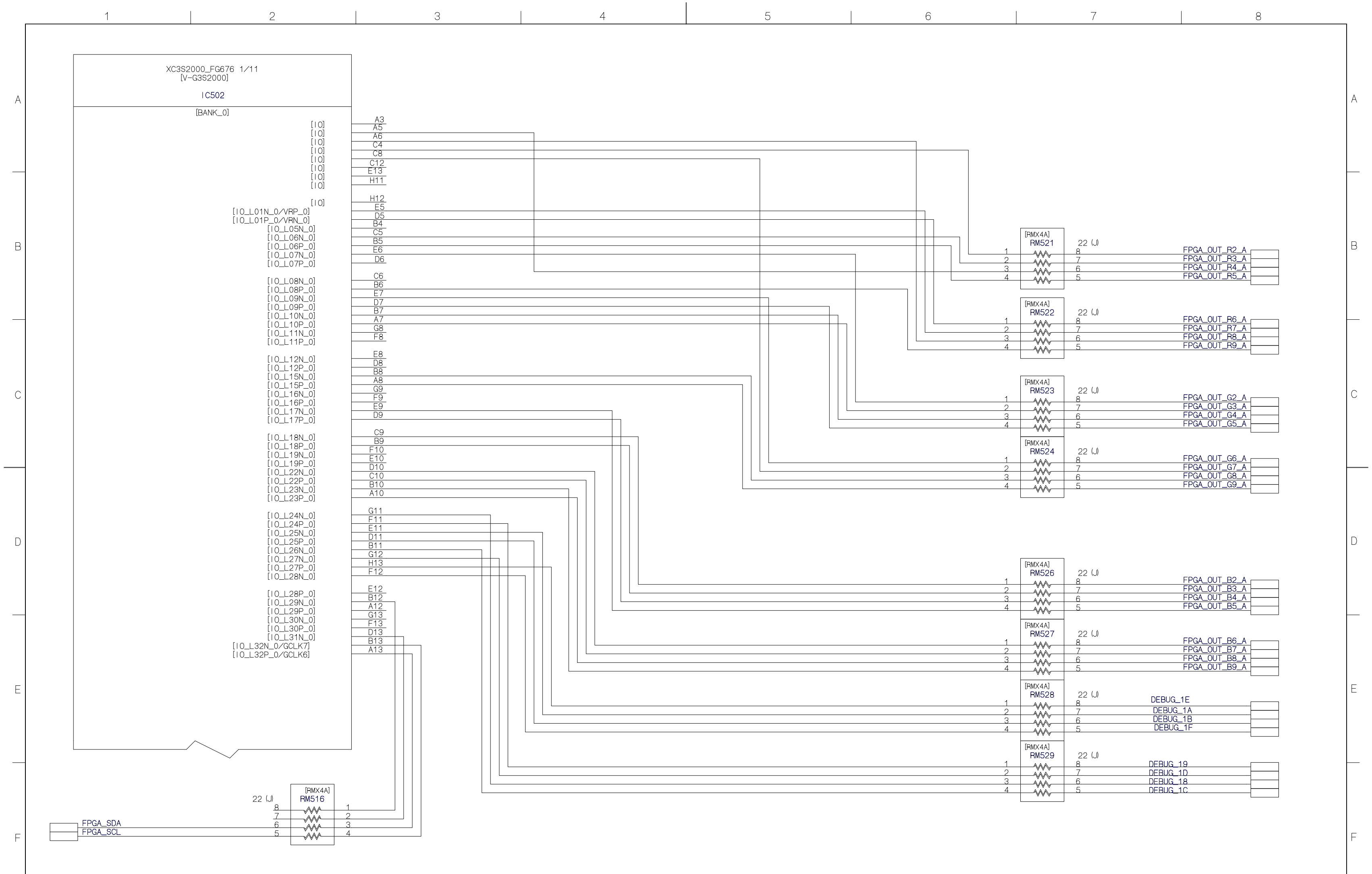
U01AS SIGNAL [525] XC3S1600E GND (PE0194)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
FPGA_PLL_S0
FPGA_PLL_S1
FPGA_PLL_S2
W5001
W5002
W5003
MOUNT
MOUNT
MOUNT
R5015
4.7K (J)
NOT MOUNT
+3.3V_FPGA_PLL
W5000
L5001
22ohm
X5000
27MHz
C5055
8pF (D)
C5059
8pF (D)
GND
MOUNT
R5016
4.7K (J)
NOT MOUNT
R5012
4.7K (J)
MOUNT
R5010
4.7K (J)
NOT MOUNT
R5013
4.7K (J)
MOUNT
R5011
4.7K (J)
R5014
4.7K (J)
ICS280G
[V-U280A]
IC501
X1/CLK
X2
S0
S1
S2
PDTS
VDD
VDD
VDD
CLK4
CLK3
CLK2
CLK1
GND
GND
GND
[TP]
DP500
[TP]
DP501
R5019
47
R5020
33 (J)
R5017
22 (J)
R5018
22 (J)
FPGA_IN_PANEL_CLK
FPGA_IN_DDRCLK
166.XXMHz
C5517
10nF (K)
C5518
10nF (K)
old name:
100_DDR_GND
old name:
100_DDR_GND
C5531
10nF (K)
old name:
100_DDR_GND
[CP]
C5054
10uF (M)
16V
C5056
0.1u
C5057
0.1u
C5058
0.1u
+3.3V_FPGA
+3.3V_FPGA_PLL
FL500

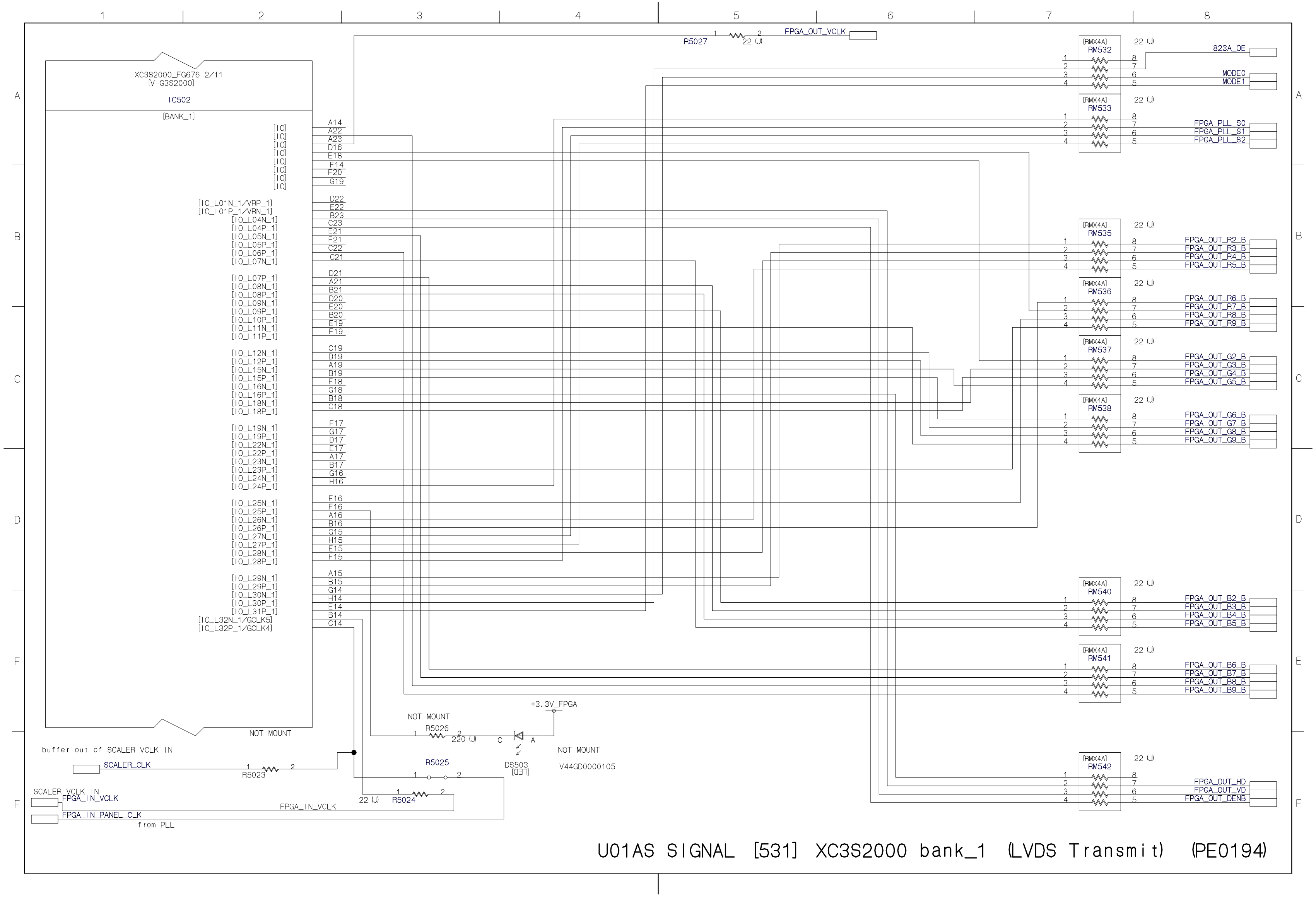
U01AS SIGNAL [526] XC3S2000 Clock Generator) (PE0194)


CLKも双方向なのでダイオードは必要 20060221
+3.3V_FPGA
[MFN]
G
Q5000
2SK2035 (TE85L, F)
D
[SBD]
S
CORTEZ側 5V系
SCL1
C
A
D5005
FPGA側 3.3V系
+3.3V_FPGA
[MFN]
G
Q5001
2SK2035 (TE85L, F)
D
[SBD]
S
SDA1
C
A
D5000
DATAは双方向なのでダイオードは必要
[CN3]
PJ500
1
2
3
NOT MOUNT
GND
+3.3V_FPGA
2
R5000
4.7K (J)
63mW
1
FPGA_SCL
+3.3V_FPGA
2
R5001
4.7K (J)
63mW
1
FPGA_SDA

U01AS SIGNAL [529] I2C Level shift and UART BUS SW (PE0194)


XC3S2000_FG676 1/11
[V-G3S2000]
IC502
[BANK_0]
[IO] A3
[IO] A5
[IO] A6
[IO] C4
[IO] C8
[IO] C12
[IO] E13
[IO] H11
[IO] H12
[IO_L01N_0/VRP_0] E5
[IO_L01P_0/VRN_0] D5
[IO_L05N_0] B4
[IO_L06N_0] C5
[IO_L06P_0] B5
[IO_L07N_0] E6
[IO_L07P_0] D6
[IO_L08N_0] C6
[IO_L08P_0] B6
[IO_L09N_0] E7
[IO_L09P_0] D7
[IO_L10N_0] B7
[IO_L10P_0] A7
[IO_L11N_0] G8
[IO_L11P_0] F8
[IO_L12N_0] E8
[IO_L12P_0] D8
[IO_L15N_0] B8
[IO_L15P_0] A8
[IO_L16N_0] G9
[IO_L16P_0] F9
[IO_L17N_0] E9
[IO_L17P_0] D9
[IO_L18N_0] C9
[IO_L18P_0] B9
[IO_L19N_0] F10
[IO_L19P_0] E10
[IO_L22N_0] D10
[IO_L22P_0] C10
[IO_L23N_0] B10
[IO_L23P_0] A10
[IO_L24N_0] G11
[IO_L24P_0] F11
[IO_L25N_0] E11
[IO_L25P_0] D11
[IO_L26N_0] B11
[IO_L27N_0] G12
[IO_L27P_0] H13
[IO_L28N_0] F12
[IO_L28P_0] E12
[IO_L29N_0] B12
[IO_L29P_0] A12
[IO_L30N_0] G13
[IO_L30P_0] F13
[IO_L31N_0] D13
[IO_L32N_0/GCLK7] B13
[IO_L32P_0/GCLK6] A13
[RMX4A] RM521 22 (J)
FPGA_OUT_R2_A
FPGA_OUT_R3_A
FPGA_OUT_R4_A
FPGA_OUT_R5_A
[RMX4A] RM522 22 (J)
FPGA_OUT_R6_A
FPGA_OUT_R7_A
FPGA_OUT_R8_A
FPGA_OUT_R9_A
[RMX4A] RM523 22 (J)
FPGA_OUT_G2_A
FPGA_OUT_G3_A
FPGA_OUT_G4_A
FPGA_OUT_G5_A
[RMX4A] RM524 22 (J)
FPGA_OUT_G6_A
FPGA_OUT_G7_A
FPGA_OUT_G8_A
FPGA_OUT_G9_A
[RMX4A] RM526 22 (J)
FPGA_OUT_B2_A
FPGA_OUT_B3_A
FPGA_OUT_B4_A
FPGA_OUT_B5_A
[RMX4A] RM527 22 (J)
FPGA_OUT_B6_A
FPGA_OUT_B7_A
FPGA_OUT_B8_A
FPGA_OUT_B9_A
[RMX4A] RM528 22 (J)
DEBUG_1E
DEBUG_1A
DEBUG_1B
DEBUG_1F
[RMX4A] RM529 22 (J)
DEBUG_19
DEBUG_1D
DEBUG_18
DEBUG_1C
[RMX4A] RM516 22 (J)
FPGA_SDA
FPGA_SCL
1 2 3 4 5 6 7 8
A B C D E F

U01AS SIGNAL [530] XC3S2000 bank_0 (LVDS Transmit) (PE0194)


1
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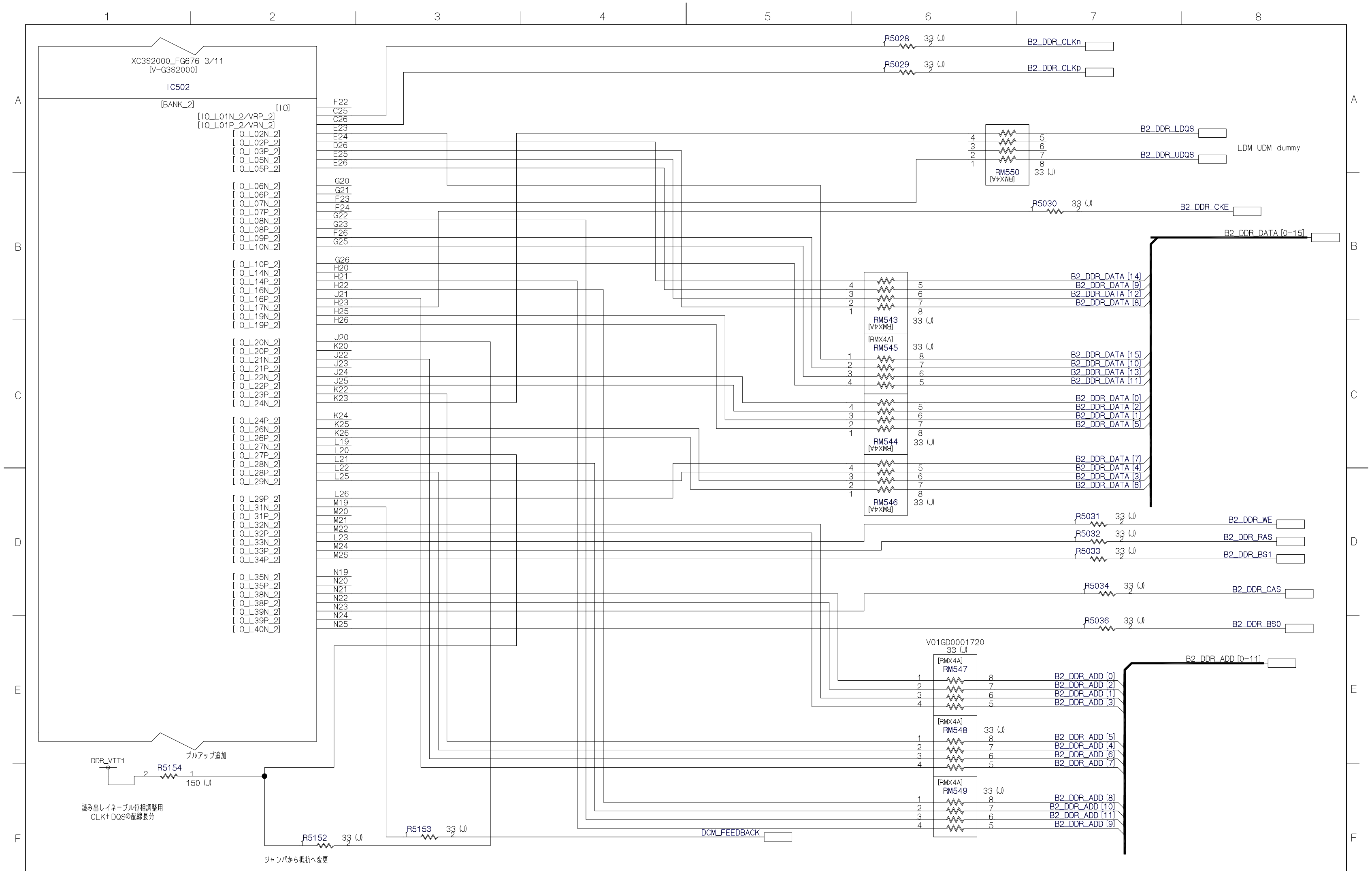
5
6
7
8
A
B
C
D
E
F
XC3S2000_FG676 2/11
[V-G3S2000]
IC502
[BANK_1]
[IO] A14
[IO] A22
[IO] A23
[IO] D16
[IO] E18
[IO] F14
[IO] F20
[IO] G19
[IO_L01N_1/VRP_1] D22
[IO_L01P_1/VRN_1] E22
[IO_L04N_1] B23
[IO_L04P_1] C23
[IO_L05N_1] E21
[IO_L05P_1] F21
[IO_L06P_1] C22
[IO_L07N_1] C21
[IO_L07P_1] D21
[IO_L08N_1] A21
[IO_L08P_1] B21
[IO_L09N_1] D20
[IO_L09P_1] E20
[IO_L10P_1] B20
[IO_L11N_1] E19
[IO_L11P_1] F19
[IO_L12N_1] C19
[IO_L12P_1] D19
[IO_L15N_1] A19
[IO_L15P_1] B19
[IO_L16N_1] F18
[IO_L16P_1] G18
[IO_L18N_1] B18
[IO_L18P_1] C18
[IO_L19N_1] F17
[IO_L19P_1] G17
[IO_L22N_1] D17
[IO_L22P_1] E17
[IO_L23N_1] A17
[IO_L23P_1] B17
[IO_L24N_1] G16
[IO_L24P_1] H16
[IO_L25N_1] E16
[IO_L25P_1] F16
[IO_L26N_1] A16
[IO_L26P_1] B16
[IO_L27N_1] G15
[IO_L27P_1] H15
[IO_L28N_1] E15
[IO_L28P_1] F15
[IO_L29N_1] A15
[IO_L29P_1] B15
[IO_L30N_1] G14
[IO_L30P_1] H14
[IO_L31P_1] E14
[IO_L32N_1/GCLK5] B14
[IO_L32P_1/GCLK4] C14
NOT MOUNT
R5027 1 2 22 (J)
FPGA_OUT_VCLK
[RMX4A] RM532 22 (J)
823A_OE
MODE0
MODE1
[RMX4A] RM533 22 (J)
FPGA_PLL_S0
FPGA_PLL_S1
FPGA_PLL_S2
[RMX4A] RM535 22 (J)
FPGA_OUT_R2_B
FPGA_OUT_R3_B
FPGA_OUT_R4_B
FPGA_OUT_R5_B
[RMX4A] RM536 22 (J)
FPGA_OUT_R6_B
FPGA_OUT_R7_B
FPGA_OUT_R8_B
FPGA_OUT_R9_B
[RMX4A] RM537 22 (J)
FPGA_OUT_G2_B
FPGA_OUT_G3_B
FPGA_OUT_G4_B
FPGA_OUT_G5_B
[RMX4A] RM538 22 (J)
FPGA_OUT_G6_B
FPGA_OUT_G7_B
FPGA_OUT_G8_B
FPGA_OUT_G9_B
[RMX4A] RM540 22 (J)
FPGA_OUT_B2_B
FPGA_OUT_B3_B
FPGA_OUT_B4_B
FPGA_OUT_B5_B
[RMX4A] RM541 22 (J)
FPGA_OUT_B6_B
FPGA_OUT_B7_B
FPGA_OUT_B8_B
FPGA_OUT_B9_B
[RMX4A] RM542 22 (J)
FPGA_OUT_HD
FPGA_OUT_VD
FPGA_OUT_DENB
1 2 3 4 8 7 6 5
NOT MOUNT
R5026 1 2 220 (J)
+3.3V_FPGA
C A
DS503 [LED]
NOT MOUNT
V44GD0000105
buffer out of SCALER VCLK IN
SCALER_CLK
R5023 1 2
R5025 1 2
SCALER VCLK IN
FPGA_IN_VCLK
22 (J) R5024 1 2
FPGA_IN_VCLK
FPGA_IN_PANEL_CLK
from PLL

U01AS SIGNAL [531] XC3S2000 bank_1 (LVDS Transmit) (PE0194)


1
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5
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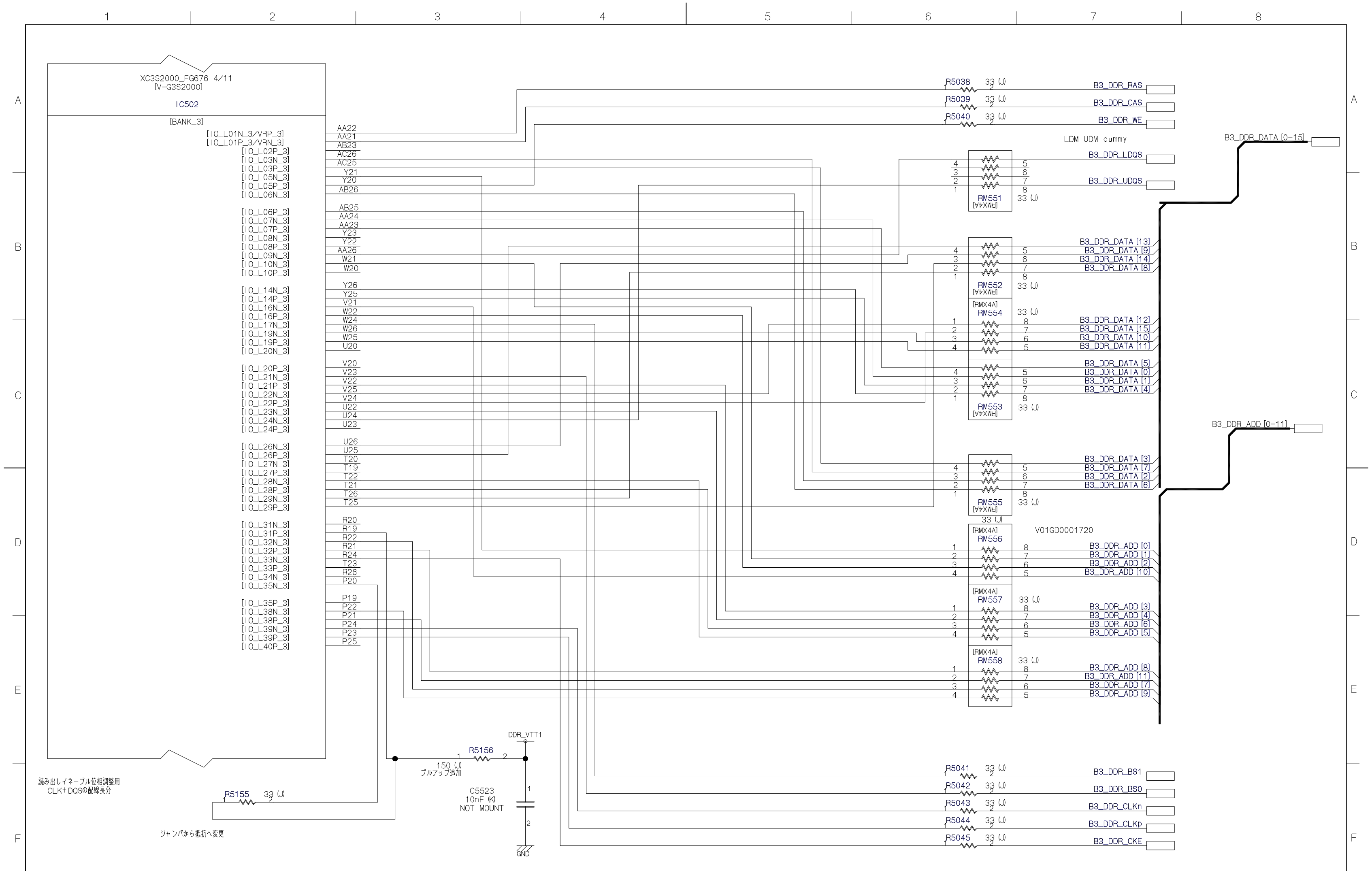
7
8
A
B
C
D
E
F
XC3S2000_FG676 3/11
[V-G3S2000]
IC502
[BANK_2]
[IO]
[IO_L01N_2/VRP_2]
[IO_L01P_2/VRN_2]
[IO_L02N_2]
[IO_L02P_2]
[IO_L03P_2]
[IO_L05N_2]
[IO_L05P_2]
[IO_L06N_2]
[IO_L06P_2]
[IO_L07N_2]
[IO_L07P_2]
[IO_L08N_2]
[IO_L08P_2]
[IO_L09P_2]
[IO_L10N_2]
[IO_L10P_2]
[IO_L14N_2]
[IO_L14P_2]
[IO_L16N_2]
[IO_L16P_2]
[IO_L17N_2]
[IO_L19N_2]
[IO_L19P_2]
[IO_L20N_2]
[IO_L20P_2]
[IO_L21N_2]
[IO_L21P_2]
[IO_L22N_2]
[IO_L22P_2]
[IO_L23P_2]
[IO_L24N_2]
[IO_L24P_2]
[IO_L26N_2]
[IO_L26P_2]
[IO_L27N_2]
[IO_L27P_2]
[IO_L28N_2]
[IO_L28P_2]
[IO_L29N_2]
[IO_L29P_2]
[IO_L31N_2]
[IO_L31P_2]
[IO_L32N_2]
[IO_L32P_2]
[IO_L33N_2]
[IO_L33P_2]
[IO_L34P_2]
[IO_L35N_2]
[IO_L35P_2]
[IO_L38N_2]
[IO_L38P_2]
[IO_L39N_2]
[IO_L39P_2]
[IO_L40N_2]
F22
C25
C26
E23
E24
D26
E25
E26
G20
G21
F23
F24
G22
G23
F26
G25
G26
H20
H21
H22
J21
H23
H25
H26
J20
K20
J22
J23
J24
J25
K22
K23
K24
K25
K26
L19
L20
L21
L22
L25
L26
M19
M20
M21
M22
L23
M24
M26
N19
N20
N21
N22
N23
N24
N25
R5028 33 (J)
B2_DDR_CLKn
R5029 33 (J)
B2_DDR_CLKp
RM550 [RMX4A] 33 (J)
B2_DDR_LDQS
B2_DDR_UDQS
LDM UDM dummy
R5030 33 (J)
B2_DDR_CKE
B2_DDR_DATA [0-15]
RM543 [RMX4A] 33 (J)
B2_DDR_DATA [14]
B2_DDR_DATA [9]
B2_DDR_DATA [12]
B2_DDR_DATA [8]
[RMX4A] RM545 33 (J)
B2_DDR_DATA [15]
B2_DDR_DATA [10]
B2_DDR_DATA [13]
B2_DDR_DATA [11]
RM544 [RMX4A] 33 (J)
B2_DDR_DATA [0]
B2_DDR_DATA [2]
B2_DDR_DATA [1]
B2_DDR_DATA [5]
RM546 [RMX4A] 33 (J)
B2_DDR_DATA [7]
B2_DDR_DATA [4]
B2_DDR_DATA [3]
B2_DDR_DATA [6]
R5031 33 (J)
B2_DDR_WE
R5032 33 (J)
B2_DDR_RAS
R5033 33 (J)
B2_DDR_BS1
R5034 33 (J)
B2_DDR_CAS
R5036 33 (J)
B2_DDR_BS0
V01GD0001720
33 (J)
[RMX4A] RM547
B2_DDR_ADD [0-11]
B2_DDR_ADD [0]
B2_DDR_ADD [2]
B2_DDR_ADD [1]
B2_DDR_ADD [3]
[RMX4A] RM548 33 (J)
B2_DDR_ADD [5]
B2_DDR_ADD [4]
B2_DDR_ADD [6]
B2_DDR_ADD [7]
[RMX4A] RM549 33 (J)
B2_DDR_ADD [8]
B2_DDR_ADD [10]
B2_DDR_ADD [11]
B2_DDR_ADD [9]
DCM_FEEDBACK
プルアップ追加
DDR_VTT1
R5154
150 (J)
読み出しイネーブル位相調整用
CLK+DQSの配線長分
R5152 33 (J)
R5153 33 (J)
ジャンパから抵抗へ変更

U01AS SIGNAL [532] XC3S2000 bank_2 (DDR Interface) (PE0194)


1
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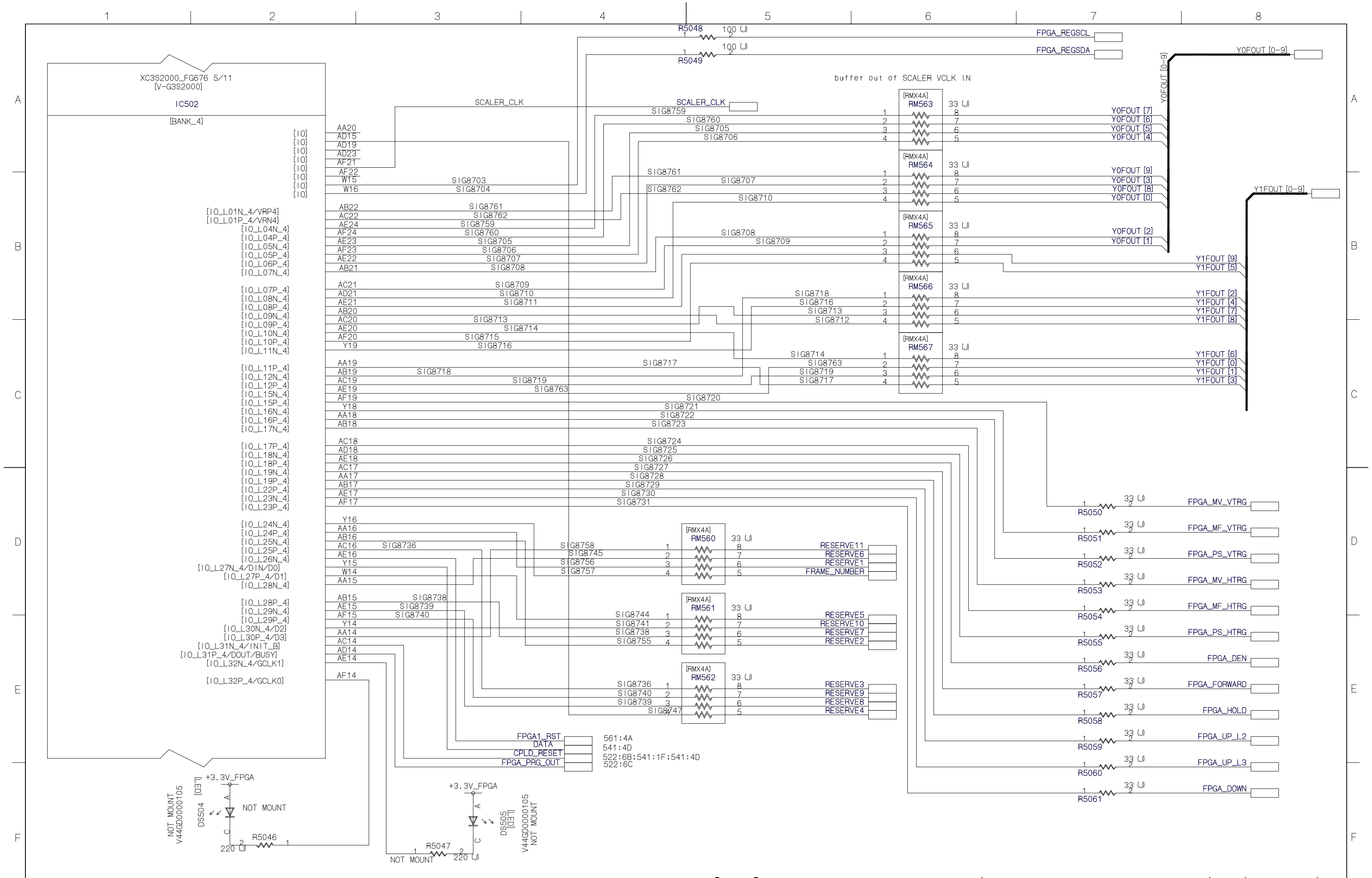
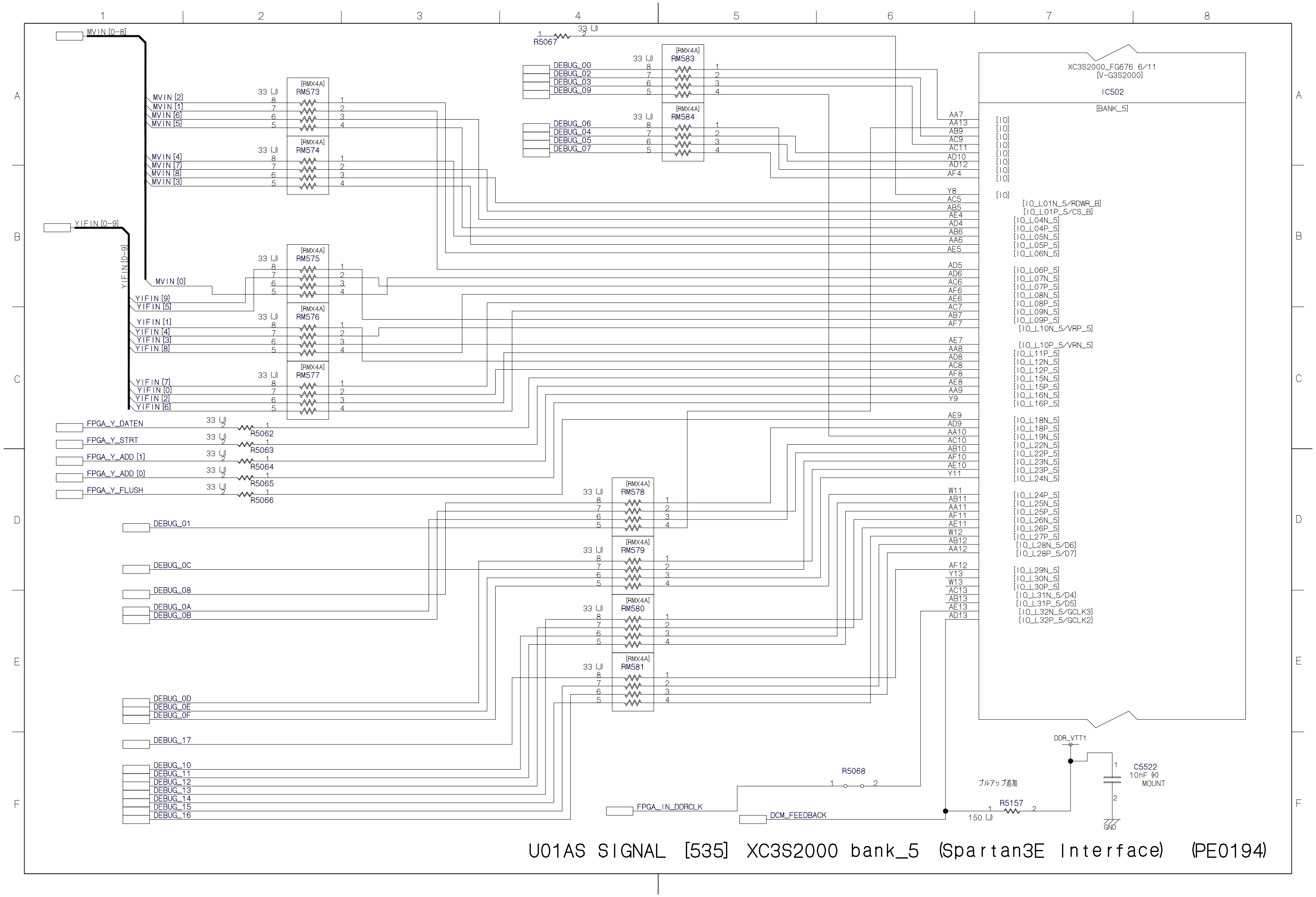
A
B
C
D
E
F
XC3S2000_FG676 4/11
[V-G3S2000]
IC502
[BANK_3]
[IO_L01N_3/VRP_3] AA22
[IO_L01P_3/VRN_3] AA21
[IO_L02P_3] AB23
[IO_L03N_3] AC26
[IO_L03P_3] AC25
[IO_L05N_3] Y21
[IO_L05P_3] Y20
[IO_L06N_3] AB26
[IO_L06P_3] AB25
[IO_L07N_3] AA24
[IO_L07P_3] AA23
[IO_L08N_3] Y23
[IO_L08P_3] Y22
[IO_L09N_3] AA26
[IO_L10N_3] W21
[IO_L10P_3] W20
[IO_L14N_3] Y26
[IO_L14P_3] Y25
[IO_L16N_3] V21
[IO_L16P_3] W22
[IO_L17N_3] W24
[IO_L19N_3] W26
[IO_L19P_3] W25
[IO_L20N_3] U20
[IO_L20P_3] V20
[IO_L21N_3] V23
[IO_L21P_3] V22
[IO_L22N_3] V25
[IO_L22P_3] V24
[IO_L23N_3] U22
[IO_L24N_3] U24
[IO_L24P_3] U23
[IO_L26N_3] U26
[IO_L26P_3] U25
[IO_L27N_3] T20
[IO_L27P_3] T19
[IO_L28N_3] T22
[IO_L28P_3] T21
[IO_L29N_3] T26
[IO_L29P_3] T25
[IO_L31N_3] R20
[IO_L31P_3] R19
[IO_L32N_3] R22
[IO_L32P_3] R21
[IO_L33N_3] R24
[IO_L33P_3] T23
[IO_L34N_3] R26
[IO_L35N_3] P20
[IO_L35P_3] P19
[IO_L38N_3] P22
[IO_L38P_3] P21
[IO_L39N_3] P24
[IO_L39P_3] P23
[IO_L40P_3] P25
R5038 33 (J) B3_DDR_RAS
R5039 33 (J) B3_DDR_CAS
R5040 33 (J) B3_DDR_WE
LDM UDM dummy
B3_DDR_LDQS
B3_DDR_UDQS
RM551 [RMX4A] 33 (J)
B3_DDR_DATA [0-15]
RM552 [RMX4A] 33 (J)
B3_DDR_DATA [13]
B3_DDR_DATA [9]
B3_DDR_DATA [14]
B3_DDR_DATA [8]
[RMX4A] RM554 33 (J)
B3_DDR_DATA [12]
B3_DDR_DATA [15]
B3_DDR_DATA [10]
B3_DDR_DATA [11]
RM553 [RMX4A] 33 (J)
B3_DDR_DATA [5]
B3_DDR_DATA [0]
B3_DDR_DATA [1]
B3_DDR_DATA [4]
B3_DDR_ADD [0-11]
RM555 [RMX4A] 33 (J)
B3_DDR_DATA [3]
B3_DDR_DATA [7]
B3_DDR_DATA [2]
B3_DDR_DATA [6]
33 (J)
[RMX4A] RM556
V01GD0001720
B3_DDR_ADD [0]
B3_DDR_ADD [1]
B3_DDR_ADD [2]
B3_DDR_ADD [10]
[RMX4A] RM557 33 (J)
B3_DDR_ADD [3]
B3_DDR_ADD [4]
B3_DDR_ADD [6]
B3_DDR_ADD [5]
[RMX4A] RM558 33 (J)
B3_DDR_ADD [8]
B3_DDR_ADD [11]
B3_DDR_ADD [7]
B3_DDR_ADD [9]
DDR_VTT1
R5156
150 (J)
プルアップ追加
C5523
10nF (K)
NOT MOUNT
GND
読み出しイネーブル位相調整用
CLK+DQSの配線長分
R5155 33 (J)
ジャンパから抵抗へ変更
R5041 33 (J) B3_DDR_BS1
R5042 33 (J) B3_DDR_BS0
R5043 33 (J) B3_DDR_CLKn
R5044 33 (J) B3_DDR_CLKp
R5045 33 (J) B3_DDR_CKE

U01AS SIGNAL [533] XC3S2000 bank_3 (DDR Interface) (PE0194)

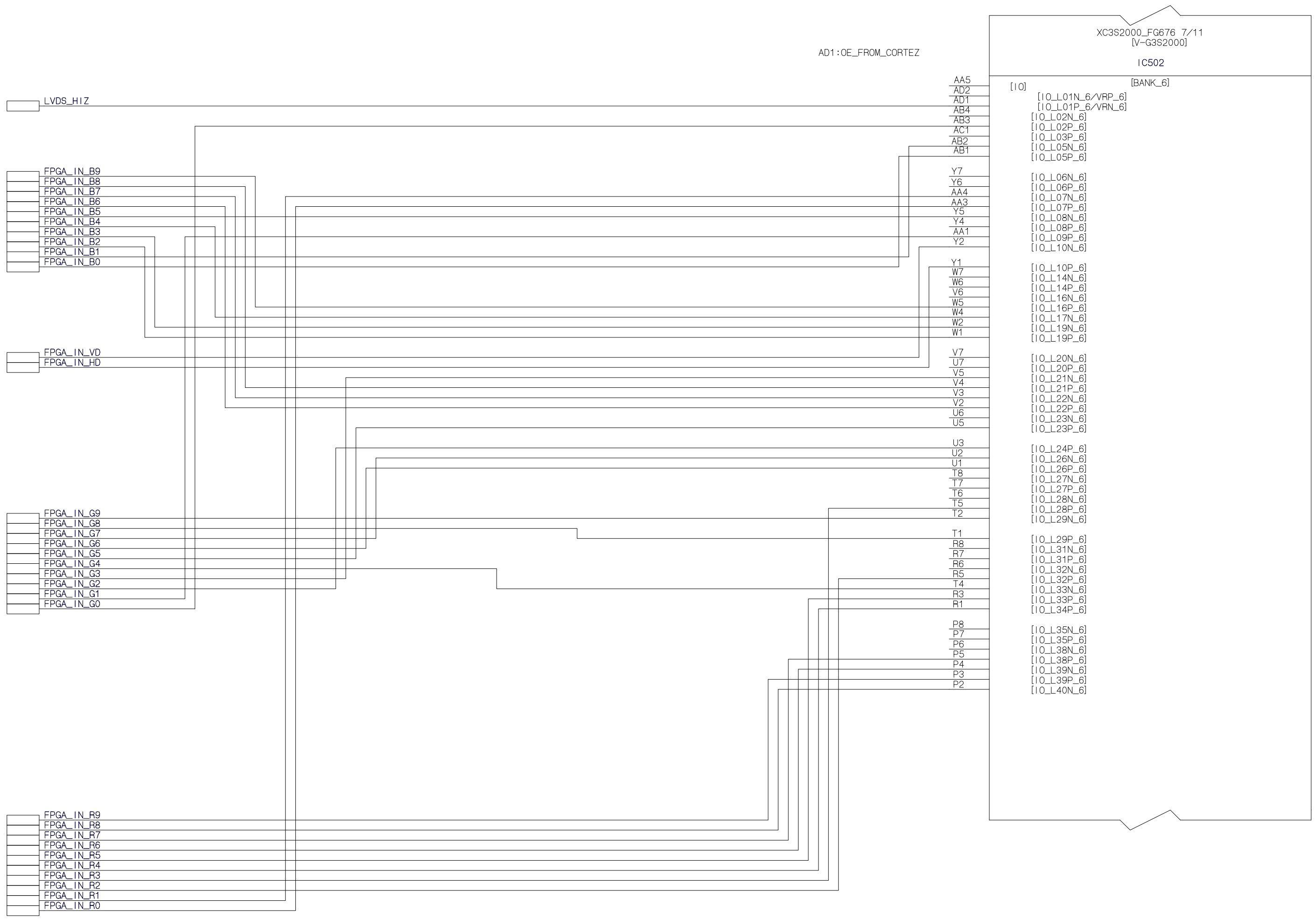


XC3S2000_FG676 5/11
[V-G3S2000]
IC502
[BANK_4]
SCALER_CLK
R5048
100 (J)
R5049
FPGA_REGSCL
FPGA_REGSDA
Y0FOUT [0-9]
Y1FOUT [0-9]
buffer out of SCALER VCLK IN
[RMX4A]
RM563
RM564
RM565
RM566
RM567
33 (J)
Y0FOUT [7]
Y0FOUT [6]
Y0FOUT [5]
Y0FOUT [4]
Y0FOUT [9]
Y0FOUT [3]
Y0FOUT [8]
Y0FOUT [0]
Y0FOUT [2]
Y0FOUT [1]
Y1FOUT [9]
Y1FOUT [5]
Y1FOUT [2]
Y1FOUT [4]
Y1FOUT [7]
Y1FOUT [8]
Y1FOUT [6]
Y1FOUT [0]
Y1FOUT [1]
Y1FOUT [3]
[IO_L01N_4/VRP4]
[IO_L01P_4/VRN4]
[IO_L27N_4/DIN/D0]
[IO_L27P_4/D1]
[IO_L30N_4/D2]
[IO_L30P_4/D3]
[IO_L31N_4/INIT_B]
[IO_L31P_4/DOUT/BUSY]
[IO_L32N_4/GCLK1]
[IO_L32P_4/GCLK0]
RM560
RM561
RM562
RESERVE11
RESERVE6
RESERVE1
FRAME_NUMBER
RESERVE5
RESERVE10
RESERVE7
RESERVE2
RESERVE3
RESERVE9
RESERVE8
RESERVE4
R5050
R5051
R5052
R5053
R5054
R5055
R5056
R5057
R5058
R5059
R5060
R5061
FPGA_MV_VTRG
FPGA_MF_VTRG
FPGA_PS_VTRG
FPGA_MV_HTRG
FPGA_MF_HTRG
FPGA_PS_HTRG
FPGA_DEN
FPGA_FORWARD
FPGA_HOLD
FPGA_UP_L2
FPGA_UP_L3
FPGA_DOWN
FPGA1_RST
DATA
CPLD_RESET
FPGA_PRG_OUT
561:4A
541:4D
522:6B:541:1F:541:4D
522:6C
+3.3V_FPGA
DS504
[LED]
NOT MOUNT
V44GD0000105
R5046
220 (J)
DS505
R5047

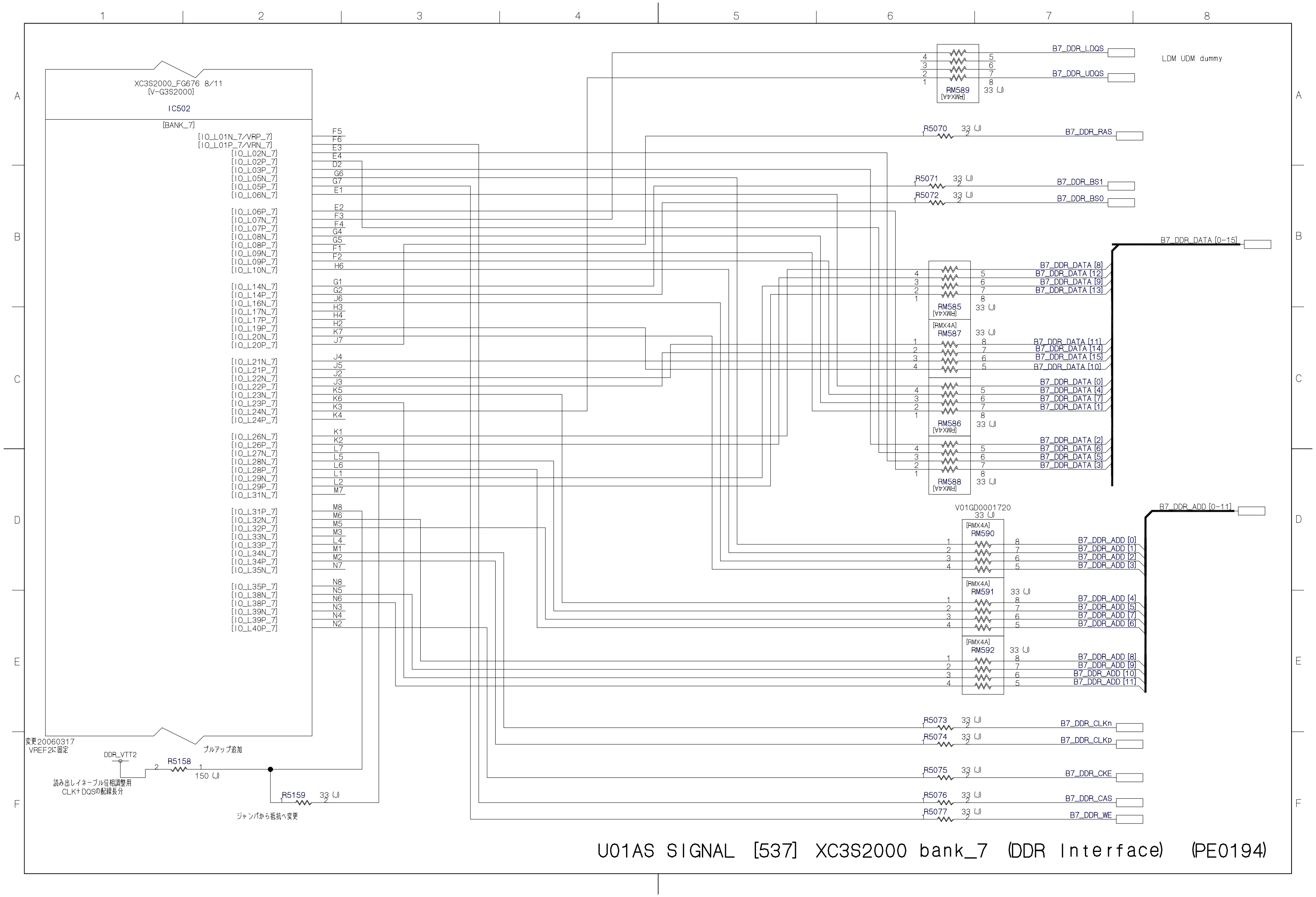
U01AS SIGNAL [534] XC3S2000 bank_4 (Spartan3E Interface) (PE0194)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
MVIN [0-8]
YIFIN [0-9]
YIFIN [0-9]
R5067
33 (J)
DEBUG_00
DEBUG_02
DEBUG_03
DEBUG_09
DEBUG_06
DEBUG_04
DEBUG_05
DEBUG_07
[RMX4A]
RM583
RM584
RM573
RM574
RM575
RM576
RM577
RM578
RM579
RM580
RM581
MVIN [2]
MVIN [1]
MVIN [6]
MVIN [5]
MVIN [4]
MVIN [7]
MVIN [8]
MVIN [3]
MVIN [0]
YIFIN [9]
YIFIN [5]
YIFIN [1]
YIFIN [4]
YIFIN [3]
YIFIN [8]
YIFIN [7]
YIFIN [0]
YIFIN [2]
YIFIN [6]
FPGA_Y_DATEN
FPGA_Y_STRT
FPGA_Y_ADD [1]
FPGA_Y_ADD [0]
FPGA_Y_FLUSH
R5062
R5063
R5064
R5065
R5066
DEBUG_01
DEBUG_0C
DEBUG_08
DEBUG_0A
DEBUG_0B
DEBUG_0D
DEBUG_0E
DEBUG_0F
DEBUG_17
DEBUG_10
DEBUG_11
DEBUG_12
DEBUG_13
DEBUG_14
DEBUG_15
DEBUG_16
XC3S2000_FG676 6/11
[V-G3S2000]
IC502
[BANK_5]
AA7
AA13
AB9
AC9
AC11
AD10
AD12
AF4
Y8
AC5
AB5
AE4
AD4
AB6
AA6
AE5
AD5
AD6
AC6
AF6
AE6
AC7
AB7
AF7
AE7
AA8
AD8
AC8
AF8
AE8
AA9
Y9
AE9
AD9
AA10
AC10
AB10
AF10
AE10
Y11
W11
AB11
AA11
AF11
AE11
W12
AB12
AA12
AF12
Y13
W13
AC13
AB13
AE13
AD13
[IO]
[IO_L01N_5/RDWR_B]
[IO_L01P_5/CS_B]
[IO_L04N_5]
[IO_L04P_5]
[IO_L05N_5]
[IO_L05P_5]
[IO_L06N_5]
[IO_L06P_5]
[IO_L07N_5]
[IO_L07P_5]
[IO_L08N_5]
[IO_L08P_5]
[IO_L09N_5]
[IO_L09P_5]
[IO_L10N_5/VRP_5]
[IO_L10P_5/VRN_5]
[IO_L11P_5]
[IO_L12N_5]
[IO_L12P_5]
[IO_L15N_5]
[IO_L15P_5]
[IO_L16N_5]
[IO_L16P_5]
[IO_L18N_5]
[IO_L18P_5]
[IO_L19N_5]
[IO_L22N_5]
[IO_L22P_5]
[IO_L23N_5]
[IO_L23P_5]
[IO_L24N_5]
[IO_L24P_5]
[IO_L25N_5]
[IO_L25P_5]
[IO_L26N_5]
[IO_L26P_5]
[IO_L27P_5]
[IO_L28N_5/D6]
[IO_L28P_5/D7]
[IO_L29N_5]
[IO_L30N_5]
[IO_L30P_5]
[IO_L31N_5/D4]
[IO_L31P_5/D5]
[IO_L32N_5/GCLK3]
[IO_L32P_5/GCLK2]
R5068
FPGA_IN_DDRCLK
DCM_FEEDBACK
プルアップ追加
R5157
150 (J)
DDR_VTT1
C5522
10nF (K)
MOUNT
GND

U01AS SIGNAL [535] XC3S2000 bank_5 (Spartan3E Interface) (PE0194)


AD1:OE_FROM_CORTEZ
XC3S2000_FG676 7/11
[V-G3S2000]
IC502
[BANK_6]
[IO]
LVDS_HIZ
FPGA_IN_B9
FPGA_IN_B8
FPGA_IN_B7
FPGA_IN_B6
FPGA_IN_B5
FPGA_IN_B4
FPGA_IN_B3
FPGA_IN_B2
FPGA_IN_B1
FPGA_IN_B0
FPGA_IN_VD
FPGA_IN_HD
FPGA_IN_G9
FPGA_IN_G8
FPGA_IN_G7
FPGA_IN_G6
FPGA_IN_G5
FPGA_IN_G4
FPGA_IN_G3
FPGA_IN_G2
FPGA_IN_G1
FPGA_IN_G0
FPGA_IN_R9
FPGA_IN_R8
FPGA_IN_R7
FPGA_IN_R6
FPGA_IN_R5
FPGA_IN_R4
FPGA_IN_R3
FPGA_IN_R2
FPGA_IN_R1
FPGA_IN_R0
AA5
AD2 [IO_L01N_6/VRP_6]
AD1 [IO_L01P_6/VRN_6]
AB4 [IO_L02N_6]
AB3 [IO_L02P_6]
AC1 [IO_L03P_6]
AB2 [IO_L05N_6]
AB1 [IO_L05P_6]
Y7 [IO_L06N_6]
Y6 [IO_L06P_6]
AA4 [IO_L07N_6]
AA3 [IO_L07P_6]
Y5 [IO_L08N_6]
Y4 [IO_L08P_6]
AA1 [IO_L09P_6]
Y2 [IO_L10N_6]
Y1 [IO_L10P_6]
W7 [IO_L14N_6]
W6 [IO_L14P_6]
V6 [IO_L16N_6]
W5 [IO_L16P_6]
W4 [IO_L17N_6]
W2 [IO_L19N_6]
W1 [IO_L19P_6]
V7 [IO_L20N_6]
U7 [IO_L20P_6]
V5 [IO_L21N_6]
V4 [IO_L21P_6]
V3 [IO_L22N_6]
V2 [IO_L22P_6]
U6 [IO_L23N_6]
U5 [IO_L23P_6]
U3 [IO_L24P_6]
U2 [IO_L26N_6]
U1 [IO_L26P_6]
T8 [IO_L27N_6]
T7 [IO_L27P_6]
T6 [IO_L28N_6]
T5 [IO_L28P_6]
T2 [IO_L29N_6]
T1 [IO_L29P_6]
R8 [IO_L31N_6]
R7 [IO_L31P_6]
R6 [IO_L32N_6]
R5 [IO_L32P_6]
T4 [IO_L33N_6]
R3 [IO_L33P_6]
R1 [IO_L34P_6]
P8 [IO_L35N_6]
P7 [IO_L35P_6]
P6 [IO_L38N_6]
P5 [IO_L38P_6]
P4 [IO_L39N_6]
P3 [IO_L39P_6]
P2 [IO_L40N_6]

U01AS SIGNAL [536] XC3S2000 bank_6 (LVDS Receive) (PE0194)


1
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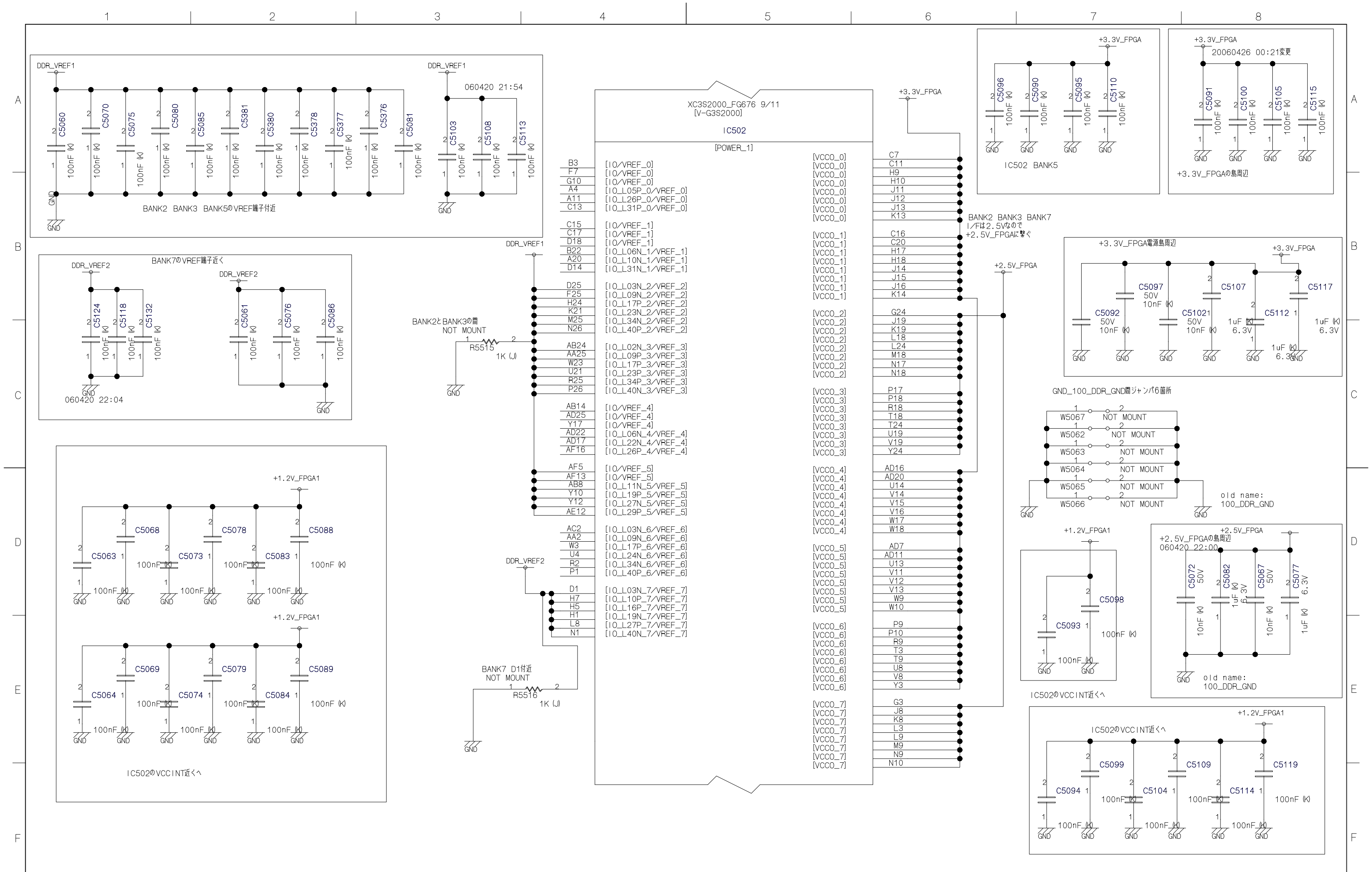
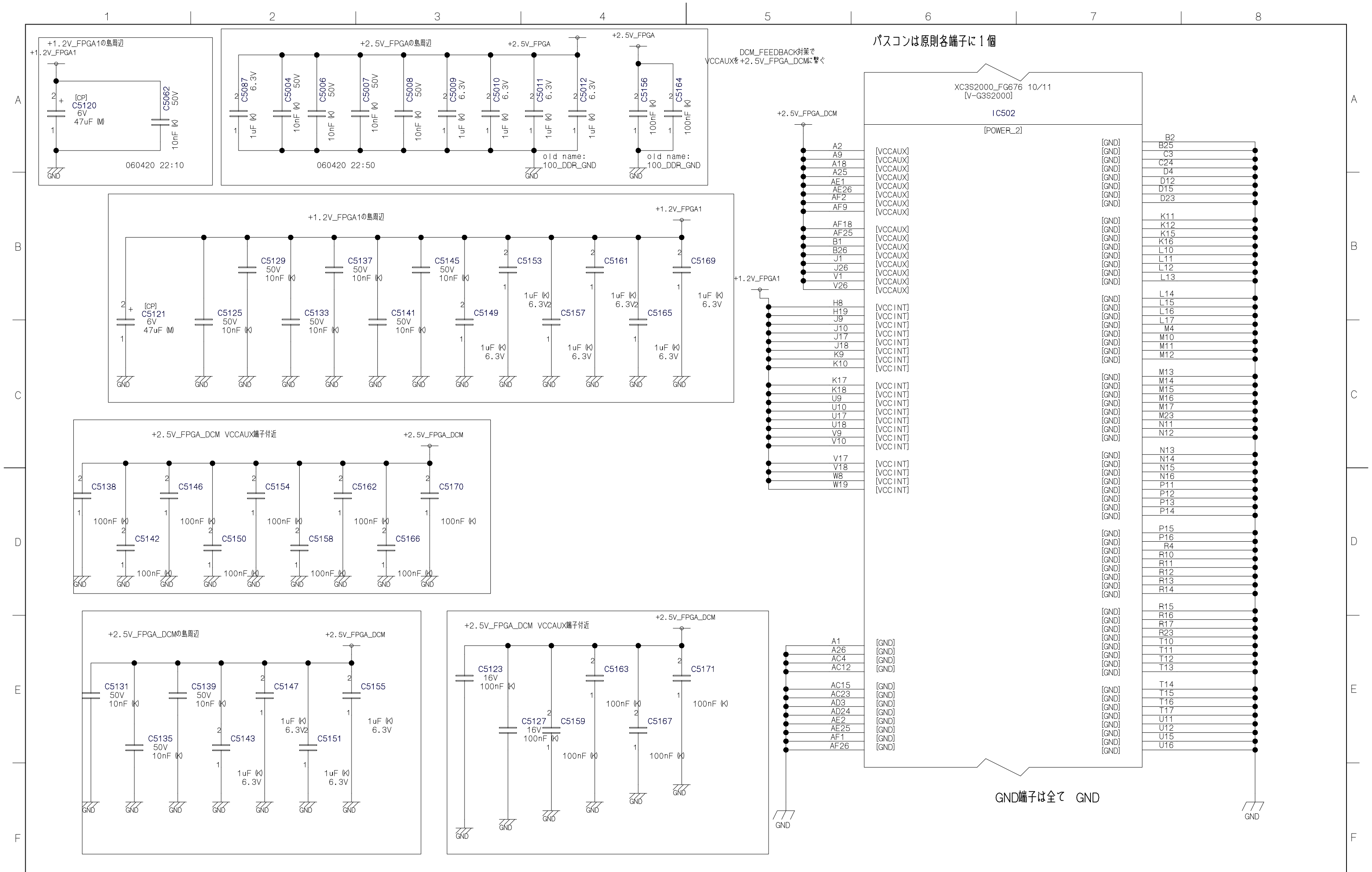
7
8
A
B
C
D
E
F
XC3S2000_FG676 8/11
[V-G3S2000]
IC502
[BANK_7]
[IO_L01N_7/VRP_7] F5
[IO_L01P_7/VRN_7] F6
[IO_L02N_7] E3
[IO_L02P_7] E4
[IO_L03P_7] D2
[IO_L05N_7] G6
[IO_L05P_7] G7
[IO_L06N_7] E1
[IO_L06P_7] E2
[IO_L07N_7] F3
[IO_L07P_7] F4
[IO_L08N_7] G4
[IO_L08P_7] G5
[IO_L09N_7] F1
[IO_L09P_7] F2
[IO_L10N_7] H6
[IO_L14N_7] G1
[IO_L14P_7] G2
[IO_L16N_7] J6
[IO_L17N_7] H3
[IO_L17P_7] H4
[IO_L19P_7] H2
[IO_L20N_7] K7
[IO_L20P_7] J7
[IO_L21N_7] J4
[IO_L21P_7] J5
[IO_L22N_7] J2
[IO_L22P_7] J3
[IO_L23N_7] K5
[IO_L23P_7] K6
[IO_L24N_7] K3
[IO_L24P_7] K4
[IO_L26N_7] K1
[IO_L26P_7] K2
[IO_L27N_7] L7
[IO_L28N_7] L5
[IO_L28P_7] L6
[IO_L29N_7] L1
[IO_L29P_7] L2
[IO_L31N_7] M7
[IO_L31P_7] M8
[IO_L32N_7] M6
[IO_L32P_7] M5
[IO_L33N_7] M3
[IO_L33P_7] L4
[IO_L34N_7] M1
[IO_L34P_7] M2
[IO_L35N_7] N7
[IO_L35P_7] N8
[IO_L38N_7] N5
[IO_L38P_7] N6
[IO_L39N_7] N3
[IO_L39P_7] N4
[IO_L40P_7] N2
RM589 [RMX4A] 33 (J)
B7_DDR_LDQS
B7_DDR_UDQS
LDM UDM dummy
R5070 33 (J) B7_DDR_RAS
R5071 33 (J) B7_DDR_BS1
R5072 33 (J) B7_DDR_BS0
B7_DDR_DATA [0-15]
RM585 [RMX4A] 33 (J)
B7_DDR_DATA [8]
B7_DDR_DATA [12]
B7_DDR_DATA [9]
B7_DDR_DATA [13]
[RMX4A] RM587 33 (J)
B7_DDR_DATA [11]
B7_DDR_DATA [14]
B7_DDR_DATA [15]
B7_DDR_DATA [10]
RM586 [RMX4A] 33 (J)
B7_DDR_DATA [0]
B7_DDR_DATA [4]
B7_DDR_DATA [7]
B7_DDR_DATA [1]
RM588 [RMX4A] 33 (J)
B7_DDR_DATA [2]
B7_DDR_DATA [6]
B7_DDR_DATA [5]
B7_DDR_DATA [3]
V01GD0001720
33 (J)
B7_DDR_ADD [0-11]
[RMX4A] RM590
B7_DDR_ADD [0]
B7_DDR_ADD [1]
B7_DDR_ADD [2]
B7_DDR_ADD [3]
[RMX4A] RM591 33 (J)
B7_DDR_ADD [4]
B7_DDR_ADD [5]
B7_DDR_ADD [7]
B7_DDR_ADD [6]
[RMX4A] RM592 33 (J)
B7_DDR_ADD [8]
B7_DDR_ADD [9]
B7_DDR_ADD [10]
B7_DDR_ADD [11]
R5073 33 (J) B7_DDR_CLKn
R5074 33 (J) B7_DDR_CLKp
R5075 33 (J) B7_DDR_CKE
R5076 33 (J) B7_DDR_CAS
R5077 33 (J) B7_DDR_WE
変更20060317
VREF2に固定
プルアップ追加
DDR_VTT2
R5158
150 (J)
読み出しイネーブル位相調整用
CLK+DQSの配線長分
R5159 33 (J)
ジャンパから抵抗へ変更

U01AS SIGNAL [537] XC3S2000 bank_7 (DDR Interface) (PE0194)


XC3S2000_FG676 9/11
[V-G3S2000]
IC502
[POWER_1]
DDR_VREF1
DDR_VREF2
060420 21:54
060420 22:04
BANK2 BANK3 BANK5のVREF端子付近
BANK7のVREF端子近く
BANK2とBANK3の間
NOT MOUNT
R5515
1K (J)
BANK7 D1付近
NOT MOUNT
R5516
1K (J)
+3.3V_FPGA
+2.5V_FPGA
+1.2V_FPGA1
IC502 BANK5
20060426 00:21変更
+3.3V_FPGAの島周辺
BANK2 BANK3 BANK7
I/Fは2.5Vなので
+2.5V_FPGAに繋ぐ
+3.3V_FPGA電源島周辺
GND_100_DDR_GND間ジャンパ6箇所
W5067 NOT MOUNT
W5062 NOT MOUNT
W5063 NOT MOUNT
W5064 NOT MOUNT
W5065 NOT MOUNT
W5066 NOT MOUNT
old name:
100_DDR_GND
+2.5V_FPGAの島周辺
060420 22:00
IC502のVCCINT近くへ
GND
100nF (K)
10nF (K)
1uF (K)
50V
6.3V
C5060
C5070
C5075
C5080
C5085
C5381
C5380
C5378
C5377
C5376
C5081
C5103
C5108
C5113
C5124
C5118
C5132
C5061
C5076
C5086
C5096
C5090
C5095
C5110
C5091
C5100
C5105
C5115
C5092
C5097
C51021
C5107
C5112
C5117
C5093
C5098
C5072
C5082
C5067
C5077
C5063
C5068
C5073
C5078
C5083
C5088
C5064
C5069
C5074
C5079
C5084
C5089
C5094
C5099
C5104
C5109
C5114
C5119
B3 [IO/VREF_0]
F7 [IO/VREF_0]
G10 [IO/VREF_0]
A4 [IO_L05P_0/VREF_0]
A11 [IO_L26P_0/VREF_0]
C13 [IO_L31P_0/VREF_0]
C15 [IO/VREF_1]
C17 [IO/VREF_1]
D18 [IO/VREF_1]
B22 [IO_L06N_1/VREF_1]
A20 [IO_L10N_1/VREF_1]
D14 [IO_L31N_1/VREF_1]
D25 [IO_L03N_2/VREF_2]
F25 [IO_L09N_2/VREF_2]
H24 [IO_L17P_2/VREF_2]
K21 [IO_L23N_2/VREF_2]
M25 [IO_L34N_2/VREF_2]
N26 [IO_L40P_2/VREF_2]
AB24 [IO_L02N_3/VREF_3]
AA25 [IO_L09P_3/VREF_3]
W23 [IO_L17P_3/VREF_3]
U21 [IO_L23P_3/VREF_3]
R25 [IO_L34P_3/VREF_3]
P26 [IO_L40N_3/VREF_3]
AB14 [IO/VREF_4]
AD25 [IO/VREF_4]
Y17 [IO/VREF_4]
AD22 [IO_L06N_4/VREF_4]
AD17 [IO_L22N_4/VREF_4]
AF16 [IO_L26P_4/VREF_4]
AF5 [IO/VREF_5]
AF13 [IO/VREF_5]
AB8 [IO_L11N_5/VREF_5]
Y10 [IO_L19P_5/VREF_5]
Y12 [IO_L27N_5/VREF_5]
AE12 [IO_L29P_5/VREF_5]
AC2 [IO_L03N_6/VREF_6]
AA2 [IO_L09N_6/VREF_6]
W3 [IO_L17P_6/VREF_6]
U4 [IO_L24N_6/VREF_6]
R2 [IO_L34N_6/VREF_6]
P1 [IO_L40P_6/VREF_6]
D1 [IO_L03N_7/VREF_7]
H7 [IO_L10P_7/VREF_7]
H5 [IO_L16P_7/VREF_7]
H1 [IO_L19N_7/VREF_7]
L8 [IO_L27P_7/VREF_7]
N1 [IO_L40N_7/VREF_7]
[VCCO_0] C7 C11 H9 H10 J11 J12 J13 K13
[VCCO_1] C16 C20 H17 H18 J14 J15 J16 K14
[VCCO_2] G24 J19 K19 L18 L24 M18 N17 N18
[VCCO_3] P17 P18 R18 T18 T24 U19 V19 Y24
[VCCO_4] AD16 AD20 U14 V14 V15 V16 W17 W18
[VCCO_5] AD7 AD11 U13 V11 V12 V13 W9 W10
[VCCO_6] P9 P10 R9 T3 T9 U8 V8 Y3
[VCCO_7] G3 J8 K8 L3 L9 M9 N9 N10
1 2 3 4 5 6 7 8
A B C D E F

U01AS SIGNAL [538] XC3S2000 VREF and VCCO (PE0194)



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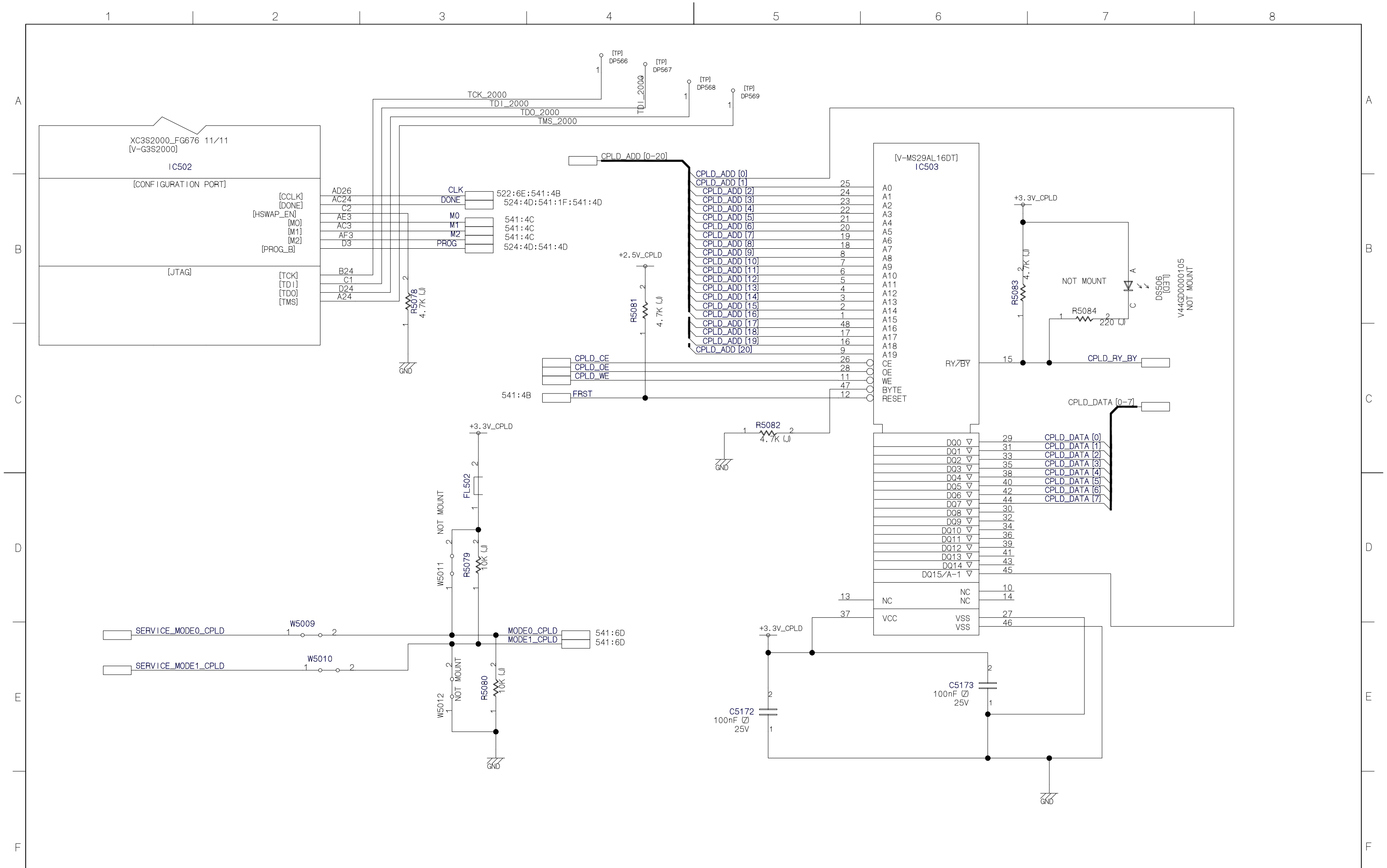
A
B
C
D
E
F
+1.2V_FPGA1の島周辺
+1.2V_FPGA1
[CP]
C5120
6V
47uF (M)
C5062
50V
10nF (K)
GND
060420 22:10
+2.5V_FPGAの島周辺
+2.5V_FPGA
C5087 6.3V 1uF (K)
C5004 50V 10nF (K)
C5006 50V 10nF (K)
C5007 50V 10nF (K)
C5008 50V 10nF (K)
C5009 6.3V 1uF (K)
C5010 6.3V 1uF (K)
C5011 6.3V 1uF (K)
C5012 6.3V 1uF (K)
060420 22:50
old name:
100_DDR_GND
+2.5V_FPGA
C5156 100nF (K)
C5164 100nF (K)
old name:
100_DDR_GND
DCM_FEEDBACK対策で
VCCAUXを+2.5V_FPGA_DCMに繋ぐ
パスコンは原則各端子に１個
+1.2V_FPGA1の島周辺
+1.2V_FPGA1
[CP]
C5121
6V
47uF (M)
C5125 50V 10nF (K)
C5129 50V 10nF (K)
C5133 50V 10nF (K)
C5137 50V 10nF (K)
C5141 50V 10nF (K)
C5145 50V 10nF (K)
C5149 1uF (K) 6.3V
C5153 1uF (K) 6.3V
C5157 1uF (K) 6.3V
C5161 1uF (K) 6.3V
C5165 1uF (K) 6.3V
C5169 1uF (K) 6.3V
+2.5V_FPGA_DCM VCCAUX端子付近
+2.5V_FPGA_DCM
C5138 100nF (K)
C5142 100nF (K)
C5146 100nF (K)
C5150 100nF (K)
C5154 100nF (K)
C5158 100nF (K)
C5162 100nF (K)
C5166 100nF (K)
C5170 100nF (K)
+2.5V_FPGA_DCMの島周辺
+2.5V_FPGA_DCM
C5131 50V 10nF (K)
C5135 50V 10nF (K)
C5139 50V 10nF (K)
C5143 1uF (K) 6.3V
C5147 1uF (K) 6.3V
C5151 1uF (K) 6.3V
C5155 1uF (K) 6.3V
+2.5V_FPGA_DCM VCCAUX端子付近
+2.5V_FPGA_DCM
C5123 16V 100nF (K)
C5127 16V 100nF (K)
C5159 100nF (K)
C5163 100nF (K)
C5167 100nF (K)
C5171 100nF (K)
+2.5V_FPGA_DCM
+1.2V_FPGA1
XC3S2000_FG676 10/11
[V-G3S2000]
IC502
[POWER_2]
[VCCAUX] A2 A9 A18 A25 AE1 AE26 AF2 AF9 AF18 AF25 B1 B26 J1 J26 V1 V26
[VCCINT] H8 H19 J9 J10 J17 J18 K9 K10 K17 K18 U9 U10 U17 U18 V9 V10 V17 V18 W8 W19
[GND] A1 A26 AC4 AC12 AC15 AC23 AD3 AD24 AE2 AE25 AF1 AF26
[GND] B2 B25 C3 C24 D4 D12 D15 D23 K11 K12 K15 K16 L10 L11 L12 L13 L14 L15 L16 L17 M4 M10 M11 M12 M13 M14 M15 M16 M17 M23 N11 N12 N13 N14 N15 N16 P11 P12 P13 P14 P15 P16 R4 R10 R11 R12 R13 R14 R15 R16 R17 R23 T10 T11 T12 T13 T14 T15 T16 T17 U11 U12 U15 U16
GND端子は全て GND
GND

U01AS SIGNAL [539] XC3S2000 VCCAUX and VCCINT and GND (PE0194)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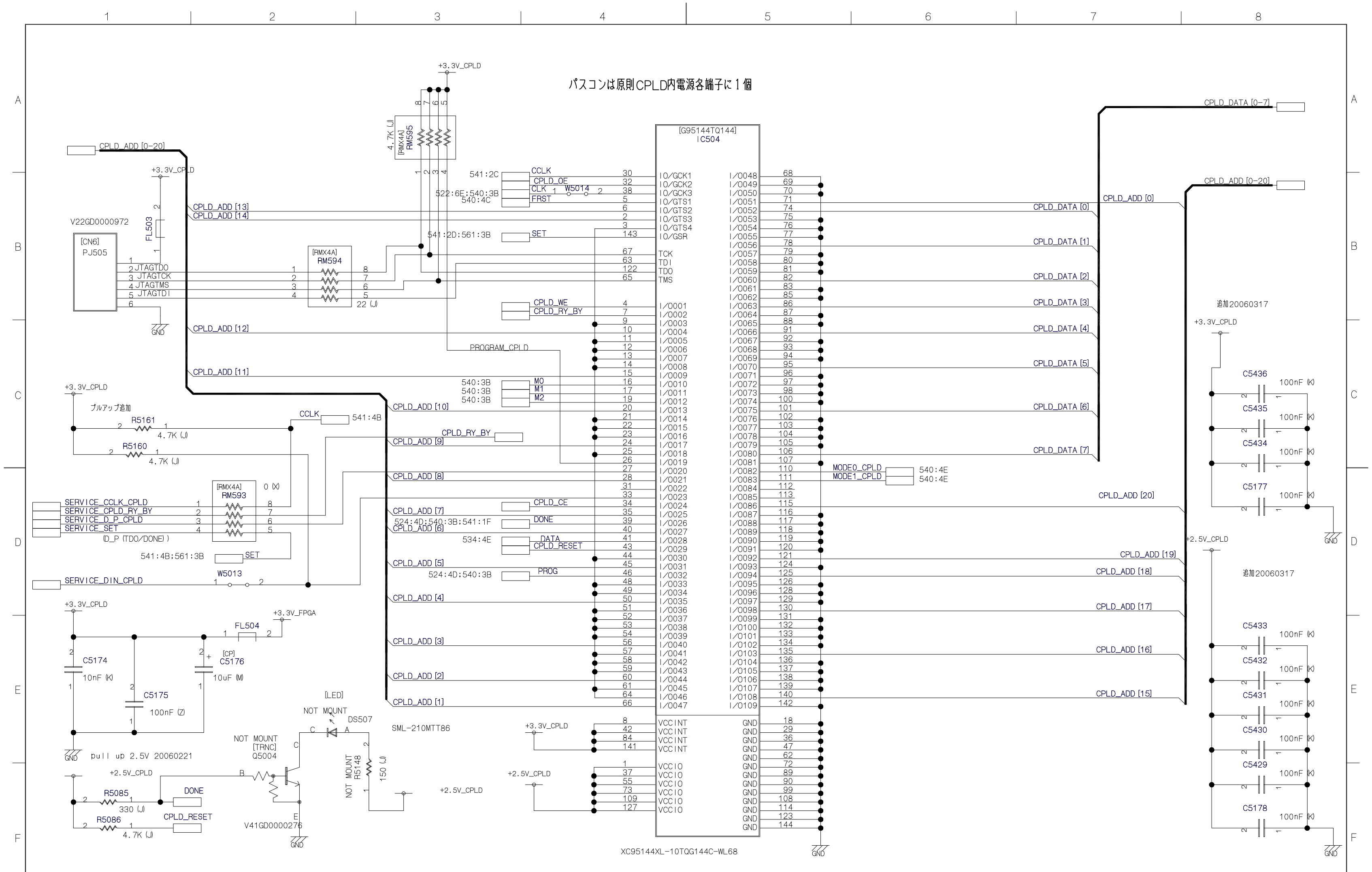
A
B
C
D
E
F
[TP]
DP566
[TP]
DP567
[TP]
DP568
[TP]
DP569
TCK_2000
TDI_2000
TDO_2000
TMS_2000
XC3S2000_FG676 11/11
[V-G3S2000]
IC502
[CONFIGURATION PORT]
[CCLK]
[DONE]
[HSWAP_EN]
[M0]
[M1]
[M2]
[PROG_B]
[JTAG]
[TCK]
[TDI]
[TDO]
[TMS]
AD26
AC24
C2
AE3
AC3
AF3
D3
B24
C1
D24
A24
CLK
DONE
M0
M1
M2
PROG
522:6E;541:4B
524:4D;541:1F;541:4D
541:4C
541:4C
541:4C
524:4D;541:4D
R5078
4.7K (J)
GND
CPLD_ADD [0-20]
CPLD_ADD [0]
CPLD_ADD [1]
CPLD_ADD [2]
CPLD_ADD [3]
CPLD_ADD [4]
CPLD_ADD [5]
CPLD_ADD [6]
CPLD_ADD [7]
CPLD_ADD [8]
CPLD_ADD [9]
CPLD_ADD [10]
CPLD_ADD [11]
CPLD_ADD [12]
CPLD_ADD [13]
CPLD_ADD [14]
CPLD_ADD [15]
CPLD_ADD [16]
CPLD_ADD [17]
CPLD_ADD [18]
CPLD_ADD [19]
CPLD_ADD [20]
+2.5V_CPLD
R5081
4.7K (J)
CPLD_CE
CPLD_OE
CPLD_WE
541:4B
FRST
[V-MS29AL16DT]
IC503
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
A13
A14
A15
A16
A17
A18
A19
CE
OE
WE
BYTE
RESET
RY/BY
R5082
4.7K (J)
+3.3V_CPLD
R5083
4.7K (J)
NOT MOUNT
R5084
220 (J)
DS506
[LED]
V44GD0000105
NOT MOUNT
CPLD_RY_BY
CPLD_DATA [0-7]
DQ0
DQ1
DQ2
DQ3
DQ4
DQ5
DQ6
DQ7
DQ8
DQ9
DQ10
DQ11
DQ12
DQ13
DQ14
DQ15/A-1
CPLD_DATA [0]
CPLD_DATA [1]
CPLD_DATA [2]
CPLD_DATA [3]
CPLD_DATA [4]
CPLD_DATA [5]
CPLD_DATA [6]
CPLD_DATA [7]
NC
VCC
VSS
C5172
100nF (Z)
25V
C5173
100nF (Z)
25V
FL502
W5011
NOT MOUNT
R5079
10K (J)
SERVICE_MODE0_CPLD
W5009
SERVICE_MODE1_CPLD
W5010
MODE0_CPLD
MODE1_CPLD
541:6D
541:6D
W5012
NOT MOUNT
R5080
10K (J)

U01AS SIGNAL [540] XC3S2000/1600E CONFIGURATION (PE0194)


1
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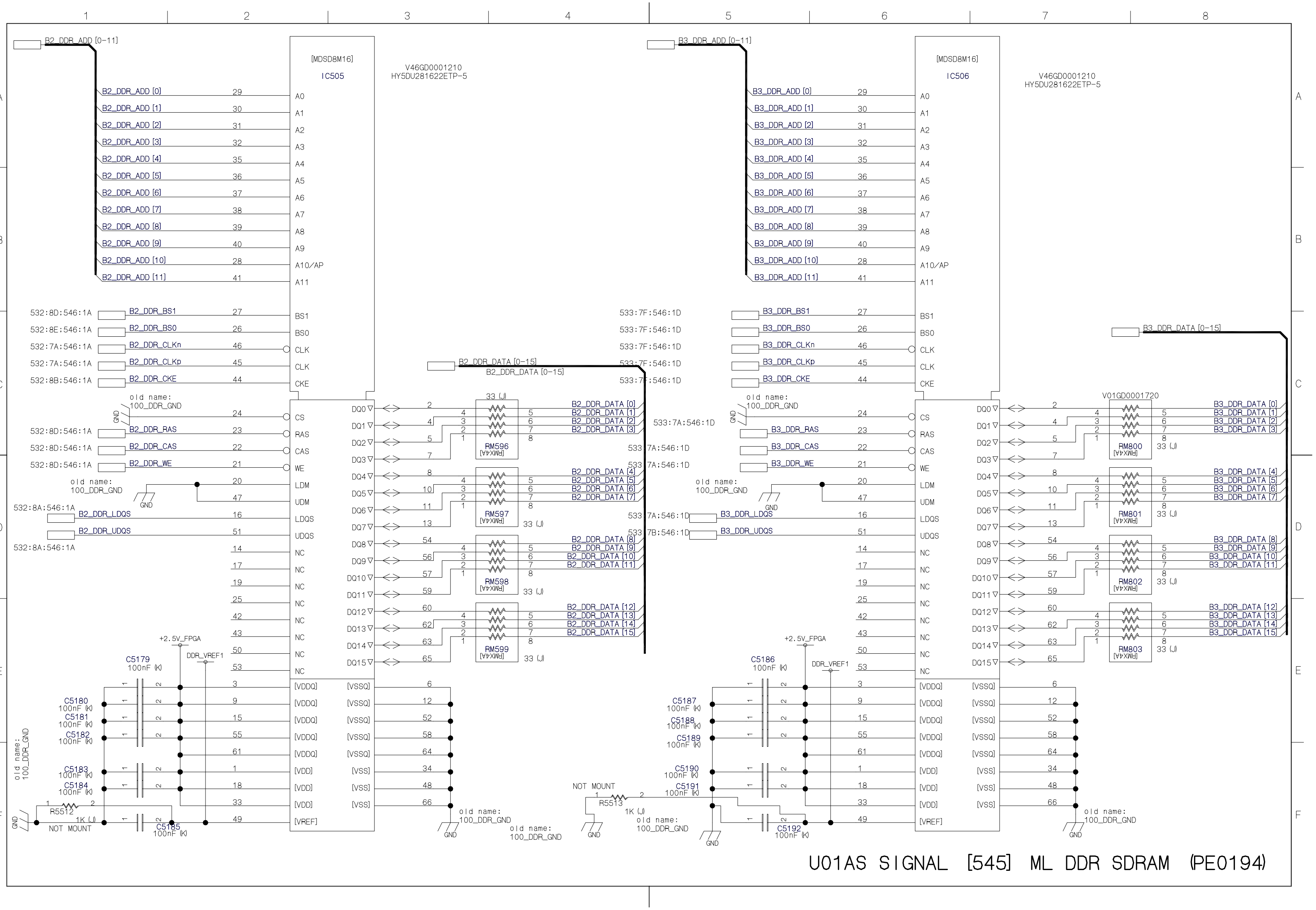
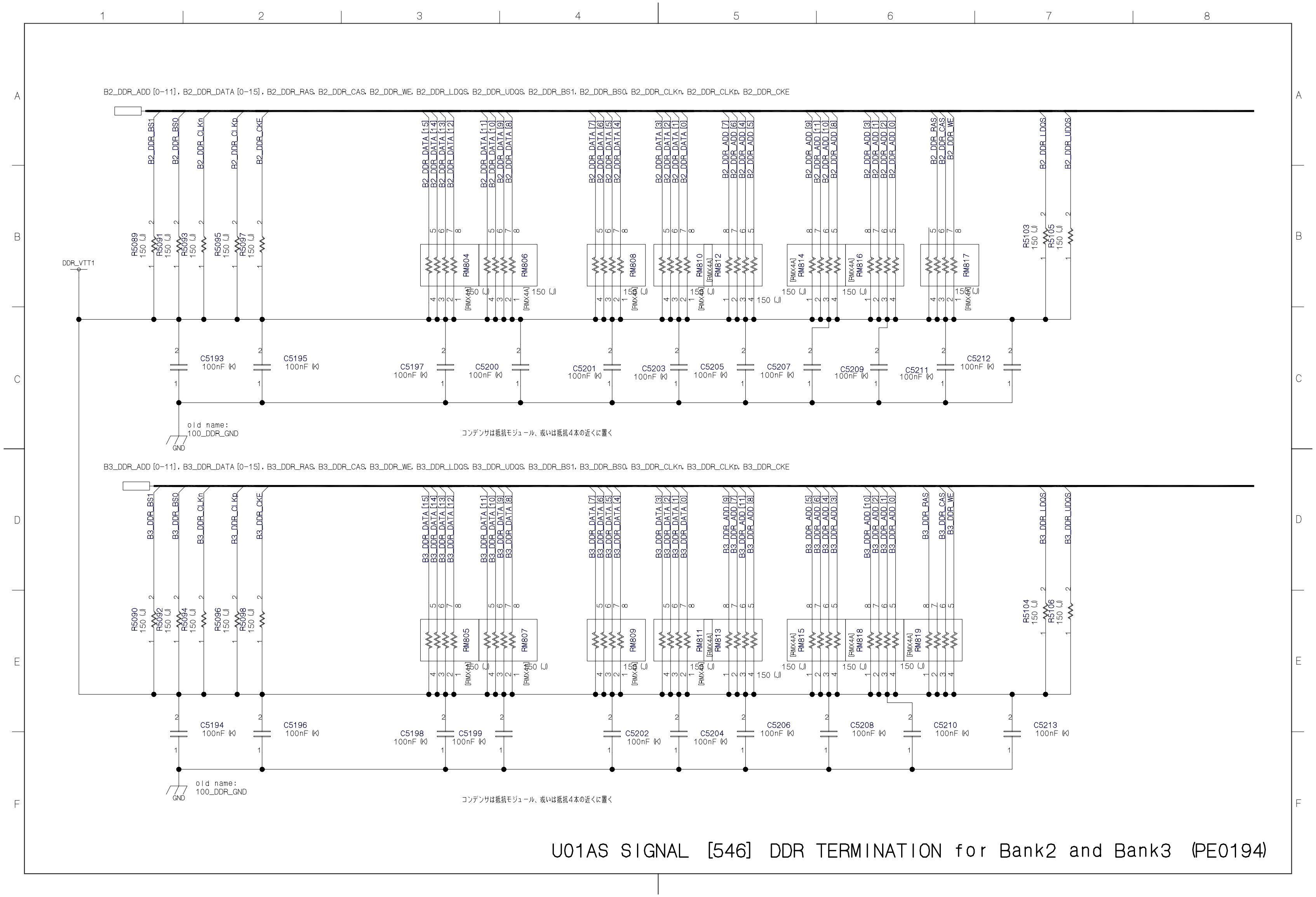
4
5
6
7
8
A
B
C
D
E
F
パスコンは原則CPLD内電源各端子に１個
+3.3V_CPLD
4.7K (J)
[RMX4A]
RM595
[G95144TQ144]
IC504
CPLD_ADD [0-20]
CPLD_DATA [0-7]
V22GD0000972
[CN6]
PJ505
FL503
JTAGTDO
JTAGTCK
JTAGTMS
JTAGTDI
GND
[RMX4A]
RM594
22 (J)
541:2C
CCLK
CPLD_OE
CLK
W5014
FRST
522:6E:540:3B
540:4C
541:2D:561:3B
SET
CPLD_ADD [13]
CPLD_ADD [14]
CPLD_ADD [12]
CPLD_ADD [11]
CPLD_ADD [10]
CPLD_ADD [9]
CPLD_ADD [8]
CPLD_ADD [7]
CPLD_ADD [6]
CPLD_ADD [5]
CPLD_ADD [4]
CPLD_ADD [3]
CPLD_ADD [2]
CPLD_ADD [1]
CPLD_ADD [0]
CPLD_WE
CPLD_RY_BY
PROGRAM_CPLD
540:3B
M0
M1
M2
IO/GCK1
IO/GCK2
IO/GCK3
IO/GTS1
IO/GTS2
IO/GTS3
IO/GTS4
IO/GSR
TCK
TDI
TDO
TMS
VCCINT
VCCIO
GND
CPLD_DATA [0]
CPLD_DATA [1]
CPLD_DATA [2]
CPLD_DATA [3]
CPLD_DATA [4]
CPLD_DATA [5]
CPLD_DATA [6]
CPLD_DATA [7]
MODE0_CPLD
MODE1_CPLD
540:4E
CPLD_ADD [20]
CPLD_ADD [19]
CPLD_ADD [18]
CPLD_ADD [17]
CPLD_ADD [16]
CPLD_ADD [15]
追加20060317
C5436
C5435
C5434
C5177
C5433
C5432
C5431
C5430
C5429
C5178
100nF (K)
+2.5V_CPLD
プルアップ追加
R5161
R5160
4.7K (J)
541:4B
[RMX4A]
RM593
0 (X)
SERVICE_CCLK_CPLD
SERVICE_CPLD_RY_BY
SERVICE_D_P_CPLD
SERVICE_SET
D_P (TDO/DONE)
541:4B:561:3B
CPLD_CE
524:4D:540:3B:541:1F
DONE
534:4E
DATA
CPLD_RESET
524:4D:540:3B
PROG
SERVICE_DIN_CPLD
W5013
+3.3V_FPGA
FL504
C5174
10nF (K)
C5175
100nF (Z)
[CP]
C5176
10uF (M)
pull up 2.5V 20060221
[LED]
NOT MOUNT
DS507
SML-210MTT86
NOT MOUNT
[TRNC]
Q5004
V41GD0000276
R5148
150 (J)
R5085
330 (J)
R5086
4.7K (J)
XC95144XL-10TQG144C-WL68

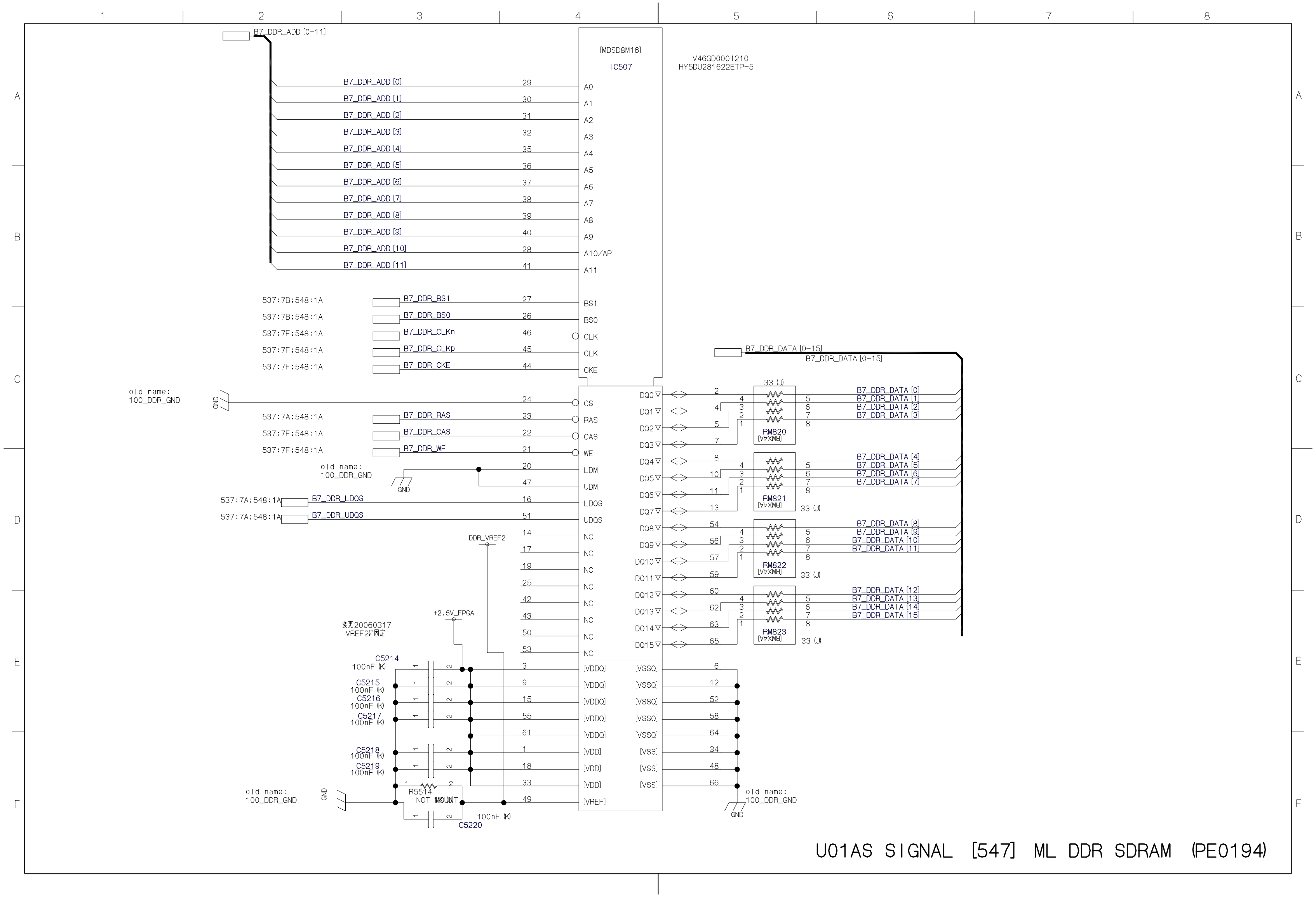
U01AS SIGNAL [541] CPLD for CONFIGURATION (PE0194)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
B2_DDR_ADD [0-11]
[MDSD8M16]
IC505
V46GD0001210
HY5DU281622ETP-5
B2_DDR_ADD [0]
B2_DDR_ADD [1]
B2_DDR_ADD [2]
B2_DDR_ADD [3]
B2_DDR_ADD [4]
B2_DDR_ADD [5]
B2_DDR_ADD [6]
B2_DDR_ADD [7]
B2_DDR_ADD [8]
B2_DDR_ADD [9]
B2_DDR_ADD [10]
B2_DDR_ADD [11]
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10/AP
A11
BS1
BS0
CLK
CLK
CKE
CS
RAS
CAS
WE
LDM
UDM
LDQS
UDQS
NC
532:8D:546:1A
B2_DDR_BS1
532:8E:546:1A
B2_DDR_BS0
532:7A:546:1A
B2_DDR_CLKn
532:7A:546:1A
B2_DDR_CLKp
532:8B:546:1A
B2_DDR_CKE
old name:
100_DDR_GND
GND
532:8D:546:1A
B2_DDR_RAS
532:8D:546:1A
B2_DDR_CAS
532:8D:546:1A
B2_DDR_WE
532:8A:546:1A
B2_DDR_LDQS
B2_DDR_UDQS
532:8A:546:1A
B2_DDR_DATA [0-15]
DQ0
DQ1
DQ2
DQ3
DQ4
DQ5
DQ6
DQ7
DQ8
DQ9
DQ10
DQ11
DQ12
DQ13
DQ14
DQ15
33 (J)
RM596
RM597
RM598
RM599
(RMX4A)
B2_DDR_DATA [0]
B2_DDR_DATA [1]
B2_DDR_DATA [2]
B2_DDR_DATA [3]
B2_DDR_DATA [4]
B2_DDR_DATA [5]
B2_DDR_DATA [6]
B2_DDR_DATA [7]
B2_DDR_DATA [8]
B2_DDR_DATA [9]
B2_DDR_DATA [10]
B2_DDR_DATA [11]
B2_DDR_DATA [12]
B2_DDR_DATA [13]
B2_DDR_DATA [14]
B2_DDR_DATA [15]
533:7A:546:1D
533:7F:546:1D
533:7B:546:1D
+2.5V_FPGA
DDR_VREF1
C5179
C5180
C5181
C5182
C5183
C5184
C5185
100nF (K)
R5512
1K (J)
NOT MOUNT
[VDDQ]
[VDD]
[VREF]
[VSSQ]
[VSS]
B3_DDR_ADD [0-11]
[MDSD8M16]
IC506
V46GD0001210
HY5DU281622ETP-5
B3_DDR_ADD [0]
B3_DDR_ADD [1]
B3_DDR_ADD [2]
B3_DDR_ADD [3]
B3_DDR_ADD [4]
B3_DDR_ADD [5]
B3_DDR_ADD [6]
B3_DDR_ADD [7]
B3_DDR_ADD [8]
B3_DDR_ADD [9]
B3_DDR_ADD [10]
B3_DDR_ADD [11]
B3_DDR_BS1
B3_DDR_BS0
B3_DDR_CLKn
B3_DDR_CLKp
B3_DDR_CKE
B3_DDR_RAS
B3_DDR_CAS
B3_DDR_WE
B3_DDR_LDQS
B3_DDR_UDQS
B3_DDR_DATA [0-15]
V01GD0001720
RM800
RM801
RM802
RM803
B3_DDR_DATA [0]
B3_DDR_DATA [1]
B3_DDR_DATA [2]
B3_DDR_DATA [3]
B3_DDR_DATA [4]
B3_DDR_DATA [5]
B3_DDR_DATA [6]
B3_DDR_DATA [7]
B3_DDR_DATA [8]
B3_DDR_DATA [9]
B3_DDR_DATA [10]
B3_DDR_DATA [11]
B3_DDR_DATA [12]
B3_DDR_DATA [13]
B3_DDR_DATA [14]
B3_DDR_DATA [15]
C5186
C5187
C5188
C5189
C5190
C5191
C5192
R5513

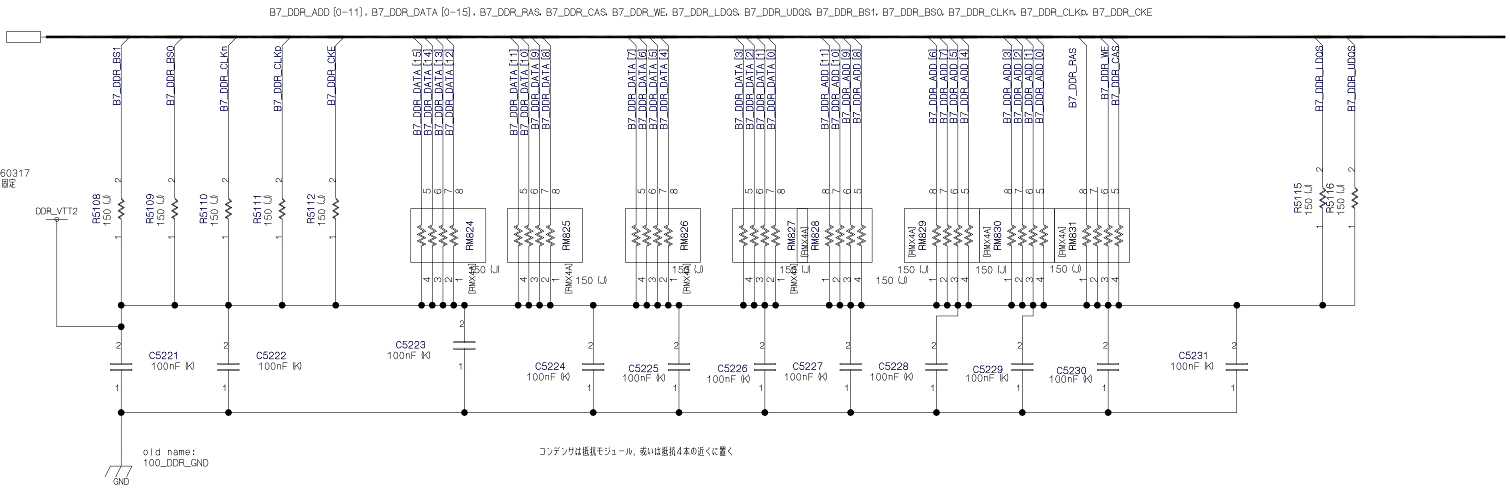
U01AS SIGNAL [545] ML DDR SDRAM (PE0194)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
B2_DDR_ADD [0-11], B2_DDR_DATA [0-15], B2_DDR_RAS, B2_DDR_CAS, B2_DDR_WE, B2_DDR_LDQS, B2_DDR_UDQS, B2_DDR_BS1, B2_DDR_BS0, B2_DDR_CLKn, B2_DDR_CLKp, B2_DDR_CKE
B2_DDR_BS1
B2_DDR_BS0
B2_DDR_CLKn
B2_DDR_CLKp
B2_DDR_CKE
B2_DDR_DATA [15]
B2_DDR_DATA [14]
B2_DDR_DATA [13]
B2_DDR_DATA [12]
B2_DDR_DATA [11]
B2_DDR_DATA [10]
B2_DDR_DATA [9]
B2_DDR_DATA [8]
B2_DDR_DATA [7]
B2_DDR_DATA [6]
B2_DDR_DATA [5]
B2_DDR_DATA [4]
B2_DDR_DATA [3]
B2_DDR_DATA [2]
B2_DDR_DATA [1]
B2_DDR_DATA [0]
B2_DDR_ADD [7]
B2_DDR_ADD [6]
B2_DDR_ADD [4]
B2_DDR_ADD [5]
B2_DDR_ADD [9]
B2_DDR_ADD [11]
B2_DDR_ADD [10]
B2_DDR_ADD [8]
B2_DDR_ADD [3]
B2_DDR_ADD [1]
B2_DDR_ADD [2]
B2_DDR_ADD [0]
B2_DDR_RAS
B2_DDR_CAS
B2_DDR_WE
B2_DDR_LDQS
B2_DDR_UDQS
DDR_VTT1
R5089
R5091
R5093
R5095
R5097
R5103
R5105
150 (J)
RM804
RM806
RM808
RM810
RM812
RM814
RM816
RM817
[RMX4A]
150 (J)
C5193
C5195
C5197
C5200
C5201
C5203
C5205
C5207
C5209
C5211
C5212
100nF (K)
old name:
100_DDR_GND
GND
コンデンサは抵抗モジュール、或いは抵抗４本の近くに置く
B3_DDR_ADD [0-11], B3_DDR_DATA [0-15], B3_DDR_RAS, B3_DDR_CAS, B3_DDR_WE, B3_DDR_LDQS, B3_DDR_UDQS, B3_DDR_BS1, B3_DDR_BS0, B3_DDR_CLKn, B3_DDR_CLKp, B3_DDR_CKE
B3_DDR_BS1
B3_DDR_BS0
B3_DDR_CLKn
B3_DDR_CLKp
B3_DDR_CKE
B3_DDR_DATA [15]
B3_DDR_DATA [14]
B3_DDR_DATA [13]
B3_DDR_DATA [12]
B3_DDR_DATA [11]
B3_DDR_DATA [10]
B3_DDR_DATA [9]
B3_DDR_DATA [8]
B3_DDR_DATA [7]
B3_DDR_DATA [6]
B3_DDR_DATA [5]
B3_DDR_DATA [4]
B3_DDR_DATA [3]
B3_DDR_DATA [2]
B3_DDR_DATA [1]
B3_DDR_DATA [0]
B3_DDR_ADD [9]
B3_DDR_ADD [7]
B3_DDR_ADD [11]
B3_DDR_ADD [8]
B3_DDR_ADD [5]
B3_DDR_ADD [6]
B3_DDR_ADD [4]
B3_DDR_ADD [3]
B3_DDR_ADD [10]
B3_DDR_ADD [2]
B3_DDR_ADD [1]
B3_DDR_ADD [0]
B3_DDR_RAS
B3_DDR_CAS
B3_DDR_WE
B3_DDR_LDQS
B3_DDR_UDQS
R5090
R5092
R5094
R5096
R5098
R5104
R5106
150 (J)
RM805
RM807
RM809
RM811
RM813
RM815
RM818
RM819
[RMX4A]
C5194
C5196
C5198
C5199
C5202
C5204
C5206
C5208
C5210
C5213
100nF (K)
old name:
100_DDR_GND
GND
コンデンサは抵抗モジュール、或いは抵抗４本の近くに置く

U01AS SIGNAL [546] DDR TERMINATION for Bank2 and Bank3 (PE0194)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
B7_DDR_ADD [0-11]
[MDSD8M16]
IC507
V46GD0001210
HY5DU281622ETP-5
B7_DDR_ADD [0] 29 A0
B7_DDR_ADD [1] 30 A1
B7_DDR_ADD [2] 31 A2
B7_DDR_ADD [3] 32 A3
B7_DDR_ADD [4] 35 A4
B7_DDR_ADD [5] 36 A5
B7_DDR_ADD [6] 37 A6
B7_DDR_ADD [7] 38 A7
B7_DDR_ADD [8] 39 A8
B7_DDR_ADD [9] 40 A9
B7_DDR_ADD [10] 28 A10/AP
B7_DDR_ADD [11] 41 A11
537:7B:548:1A B7_DDR_BS1 27 BS1
537:7B:548:1A B7_DDR_BS0 26 BS0
537:7E:548:1A B7_DDR_CLKn 46 CLK
537:7F:548:1A B7_DDR_CLKp 45 CLK
537:7F:548:1A B7_DDR_CKE 44 CKE
old name:
100_DDR_GND
GND
24 CS
537:7A:548:1A B7_DDR_RAS 23 RAS
537:7F:548:1A B7_DDR_CAS 22 CAS
537:7F:548:1A B7_DDR_WE 21 WE
old name:
100_DDR_GND
GND
20 LDM
47 UDM
537:7A:548:1A B7_DDR_LDQS 16 LDQS
537:7A:548:1A B7_DDR_UDQS 51 UDQS
DDR_VREF2
14 NC
17 NC
19 NC
25 NC
42 NC
43 NC
50 NC
53 NC
+2.5V_FPGA
変更20060317
VREF2に固定
C5214
100nF (K)
C5215
100nF (K)
C5216
100nF (K)
C5217
100nF (K)
C5218
100nF (K)
C5219
100nF (K)
R5514
NOT MOUNT
1K (J)
C5220
100nF (K)
old name:
100_DDR_GND
GND
3 [VDDQ]
9 [VDDQ]
15 [VDDQ]
55 [VDDQ]
61 [VDDQ]
1 [VDD]
18 [VDD]
33 [VDD]
49 [VREF]
[VSSQ] 6
[VSSQ] 12
[VSSQ] 52
[VSSQ] 58
[VSSQ] 64
[VSS] 34
[VSS] 48
[VSS] 66
old name:
100_DDR_GND
GND
B7_DDR_DATA [0-15]
B7_DDR_DATA [0-15]
DQ0 2
DQ1 4
DQ2 5
DQ3 7
DQ4 8
DQ5 10
DQ6 11
DQ7 13
DQ8 54
DQ9 56
DQ10 57
DQ11 59
DQ12 60
DQ13 62
DQ14 63
DQ15 65
33 (J)
RM820
[RMX4A]
RM821
[RMX4A]
33 (J)
RM822
[RMX4A]
33 (J)
RM823
[RMX4A]
33 (J)
B7_DDR_DATA [0]
B7_DDR_DATA [1]
B7_DDR_DATA [2]
B7_DDR_DATA [3]
B7_DDR_DATA [4]
B7_DDR_DATA [5]
B7_DDR_DATA [6]
B7_DDR_DATA [7]
B7_DDR_DATA [8]
B7_DDR_DATA [9]
B7_DDR_DATA [10]
B7_DDR_DATA [11]
B7_DDR_DATA [12]
B7_DDR_DATA [13]
B7_DDR_DATA [14]
B7_DDR_DATA [15]

U01AS SIGNAL [547] ML DDR SDRAM (PE0194)

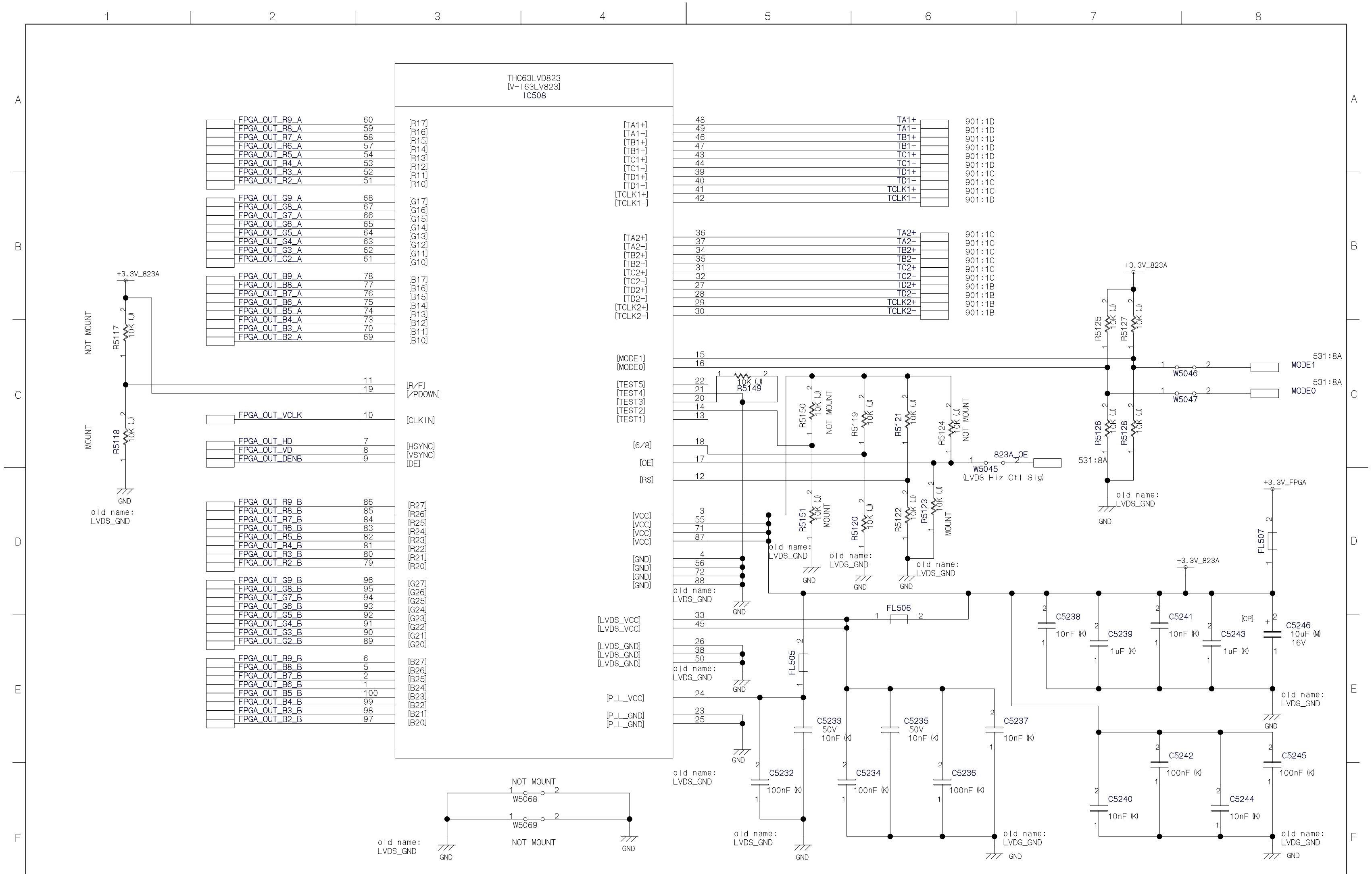

B7_DDR_ADD [0-11], B7_DDR_DATA [0-15], B7_DDR_RAS, B7_DDR_CAS, B7_DDR_WE, B7_DDR_LDQS, B7_DDR_UDQS, B7_DDR_BS1, B7_DDR_BS0, B7_DDR_CLKn, B7_DDR_CLKp, B7_DDR_CKE
B7_DDR_BS1
B7_DDR_BS0
B7_DDR_CLKn
B7_DDR_CLKp
B7_DDR_CKE
B7_DDR_DATA [15]
B7_DDR_DATA [14]
B7_DDR_DATA [13]
B7_DDR_DATA [12]
B7_DDR_DATA [11]
B7_DDR_DATA [10]
B7_DDR_DATA [9]
B7_DDR_DATA [8]
B7_DDR_DATA [7]
B7_DDR_DATA [6]
B7_DDR_DATA [5]
B7_DDR_DATA [4]
B7_DDR_DATA [3]
B7_DDR_DATA [2]
B7_DDR_DATA [1]
B7_DDR_DATA [0]
B7_DDR_ADD [11]
B7_DDR_ADD [10]
B7_DDR_ADD [9]
B7_DDR_ADD [8]
B7_DDR_ADD [6]
B7_DDR_ADD [7]
B7_DDR_ADD [5]
B7_DDR_ADD [4]
B7_DDR_ADD [3]
B7_DDR_ADD [2]
B7_DDR_ADD [1]
B7_DDR_ADD [0]
B7_DDR_RAS
B7_DDR_WE
B7_DDR_CAS
B7_DDR_LDQS
B7_DDR_UDQS
DDR_VTT2
R5108 150 (J)
R5109 150 (J)
R5110 150 (J)
R5111 150 (J)
R5112 150 (J)
RM824 [RMX4A] 150 (J)
RM825 [RMX4A] 150 (J)
RM826 [RMX4A] 150 (J)
RM827 [RMX4A] 150 (J)
RM828 [RMX4A] 150 (J)
RM829 [RMX4A] 150 (J)
RM830 [RMX4A] 150 (J)
RM831 [RMX4A] 150 (J)
R5115 150 (J)
R5116 150 (J)
C5221 100nF (K)
C5222 100nF (K)
C5223 100nF (K)
C5224 100nF (K)
C5225 100nF (K)
C5226 100nF (K)
C5227 100nF (K)
C5228 100nF (K)
C5229 100nF (K)
C5230 100nF (K)
C5231 100nF (K)
GND

変更20060317
VTT2に固定

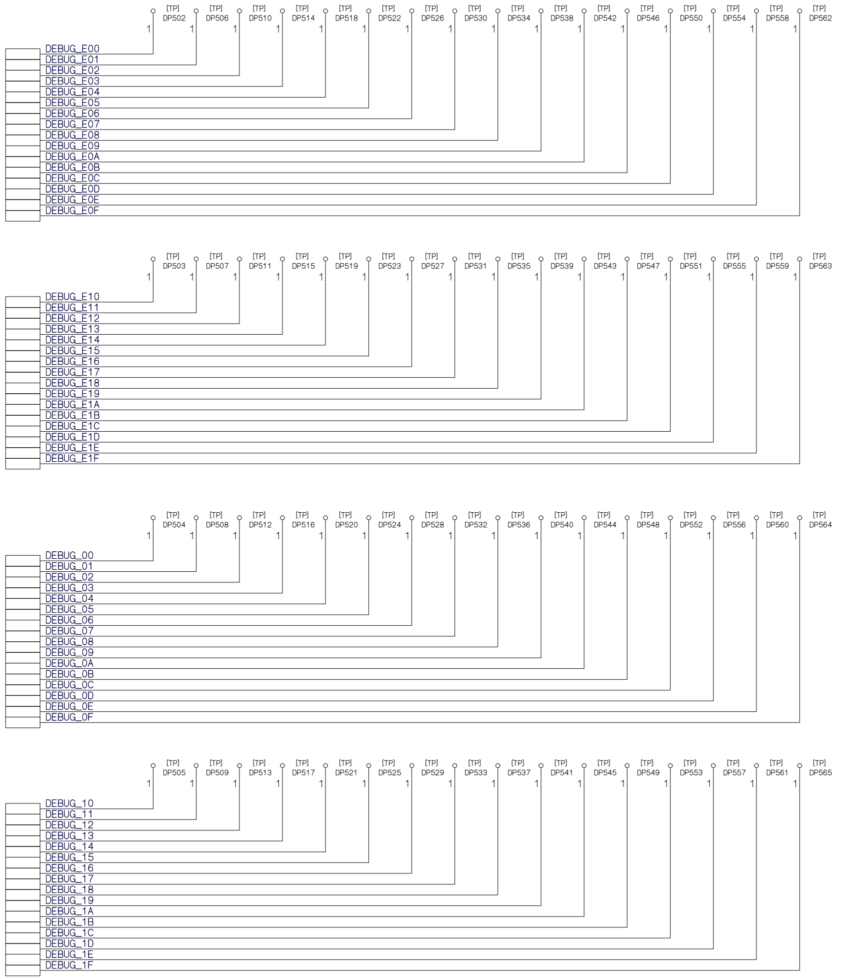
old name:
100_DDR_GND

コンデンサは抵抗モジュール、或いは抵抗4本の近くに置く

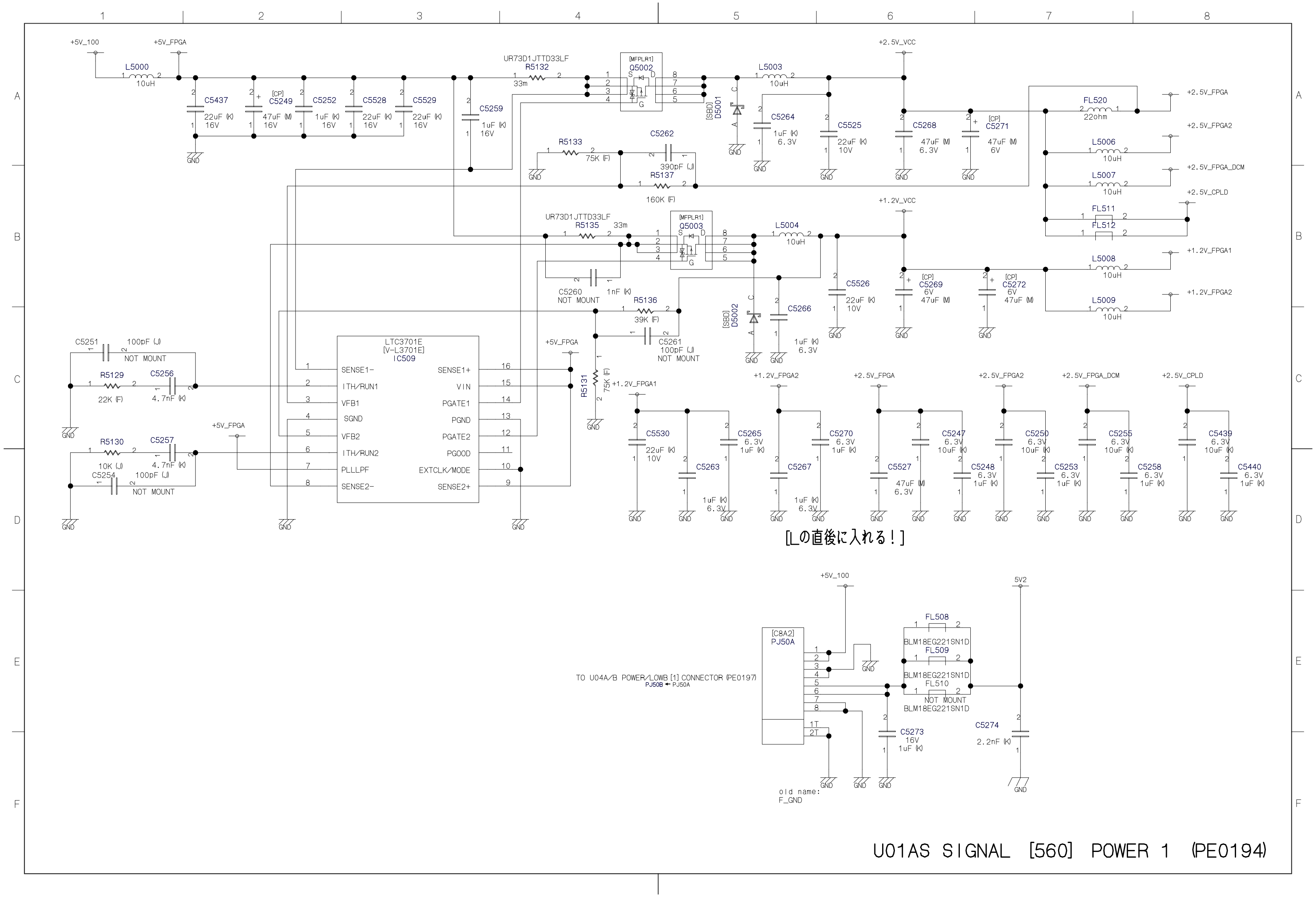
U01AS SIGNAL [548] DDR TERMINATION for Bank7 (PE0194)


THC63LVD823
[V-I63LV823]
IC508
FPGA_OUT_R9_A 60 [R17]
FPGA_OUT_R8_A 59 [R16]
FPGA_OUT_R7_A 58 [R15]
FPGA_OUT_R6_A 57 [R14]
FPGA_OUT_R5_A 54 [R13]
FPGA_OUT_R4_A 53 [R12]
FPGA_OUT_R3_A 52 [R11]
FPGA_OUT_R2_A 51 [R10]
FPGA_OUT_G9_A 68 [G17]
FPGA_OUT_G8_A 67 [G16]
FPGA_OUT_G7_A 66 [G15]
FPGA_OUT_G6_A 65 [G14]
FPGA_OUT_G5_A 64 [G13]
FPGA_OUT_G4_A 63 [G12]
FPGA_OUT_G3_A 62 [G11]
FPGA_OUT_G2_A 61 [G10]
FPGA_OUT_B9_A 78 [B17]
FPGA_OUT_B8_A 77 [B16]
FPGA_OUT_B7_A 76 [B15]
FPGA_OUT_B6_A 75 [B14]
FPGA_OUT_B5_A 74 [B13]
FPGA_OUT_B4_A 73 [B12]
FPGA_OUT_B3_A 70 [B11]
FPGA_OUT_B2_A 69 [B10]
11 [R/F]
19 [/PDOWN]
FPGA_OUT_VCLK 10 [CLKIN]
FPGA_OUT_HD 7 [HSYNC]
FPGA_OUT_VD 8 [VSYNC]
FPGA_OUT_DENB 9 [DE]
FPGA_OUT_R9_B 86 [R27]
FPGA_OUT_R8_B 85 [R26]
FPGA_OUT_R7_B 84 [R25]
FPGA_OUT_R6_B 83 [R24]
FPGA_OUT_R5_B 82 [R23]
FPGA_OUT_R4_B 81 [R22]
FPGA_OUT_R3_B 80 [R21]
FPGA_OUT_R2_B 79 [R20]
FPGA_OUT_G9_B 96 [G27]
FPGA_OUT_G8_B 95 [G26]
FPGA_OUT_G7_B 94 [G25]
FPGA_OUT_G6_B 93 [G24]
FPGA_OUT_G5_B 92 [G23]
FPGA_OUT_G4_B 91 [G22]
FPGA_OUT_G3_B 90 [G21]
FPGA_OUT_G2_B 89 [G20]
FPGA_OUT_B9_B 6 [B27]
FPGA_OUT_B8_B 5 [B26]
FPGA_OUT_B7_B 2 [B25]
FPGA_OUT_B6_B 1 [B24]
FPGA_OUT_B5_B 100 [B23]
FPGA_OUT_B4_B 99 [B22]
FPGA_OUT_B3_B 98 [B21]
FPGA_OUT_B2_B 97 [B20]
[TA1+] 48 TA1+ 901:1D
[TA1-] 49 TA1- 901:1D
[TB1+] 46 TB1+ 901:1D
[TB1-] 47 TB1- 901:1D
[TC1+] 43 TC1+ 901:1D
[TC1-] 44 TC1- 901:1D
[TD1+] 39 TD1+ 901:1C
[TD1-] 40 TD1- 901:1C
[TCLK1+] 41 TCLK1+ 901:1C
[TCLK1-] 42 TCLK1- 901:1D
[TA2+] 36 TA2+ 901:1C
[TA2-] 37 TA2- 901:1C
[TB2+] 34 TB2+ 901:1C
[TB2-] 35 TB2- 901:1C
[TC2+] 31 TC2+ 901:1C
[TC2-] 32 TC2- 901:1C
[TD2+] 27 TD2+ 901:1B
[TD2-] 28 TD2- 901:1B
[TCLK2+] 29 TCLK2+ 901:1B
[TCLK2-] 30 TCLK2- 901:1B
[MODE1] 15
[MODE0] 16
[TEST5] 22
[TEST4] 21
[TEST3] 20
[TEST2] 14
[TEST1] 13
[6/8] 18
[OE] 17
[RS] 12
[VCC] 3
[VCC] 55
[VCC] 71
[VCC] 87
[GND] 4
[GND] 56
[GND] 72
[GND] 88
[LVDS_VCC] 33
[LVDS_VCC] 45
[LVDS_GND] 26
[LVDS_GND] 38
[LVDS_GND] 50
[PLL_VCC] 24
[PLL_GND] 23
[PLL_GND] 25
+3.3V_823A
NOT MOUNT
R5117 10K (J)
MOUNT
R5118 10K (J)
GND
old name: LVDS_GND
R5149 10K (J)
R5150 10K (J) NOT MOUNT
R5119 10K (J)
R5121 10K (J)
R5124 10K (J) NOT MOUNT
R5151 10K (J) MOUNT
R5120 10K (J)
R5122 10K (J)
R5123 10K (J) MOUNT
823A_OE
W5045
(LVDS Hiz Ctl Sig)
531:8A
R5125 10K (J)
R5127 10K (J)
R5126 10K (J)
R5128 10K (J)
W5046
MODE1
W5047
MODE0
+3.3V_FPGA
FL507
FL506
FL505
C5233 50V 10nF (K)
C5235 50V 10nF (K)
C5237 10nF (K)
C5232 100nF (K)
C5234 100nF (K)
C5236 100nF (K)
C5238 10nF (K)
C5239 1uF (K)
C5241 10nF (K)
C5243 1uF (K)
[CP]
C5246 10uF (M) 16V
C5242 100nF (K)
C5245 100nF (K)
C5240 10nF (K)
C5244 10nF (K)
NOT MOUNT
W5068
W5069
NOT MOUNT
A B C D E F
1 2 3 4 5 6 7 8

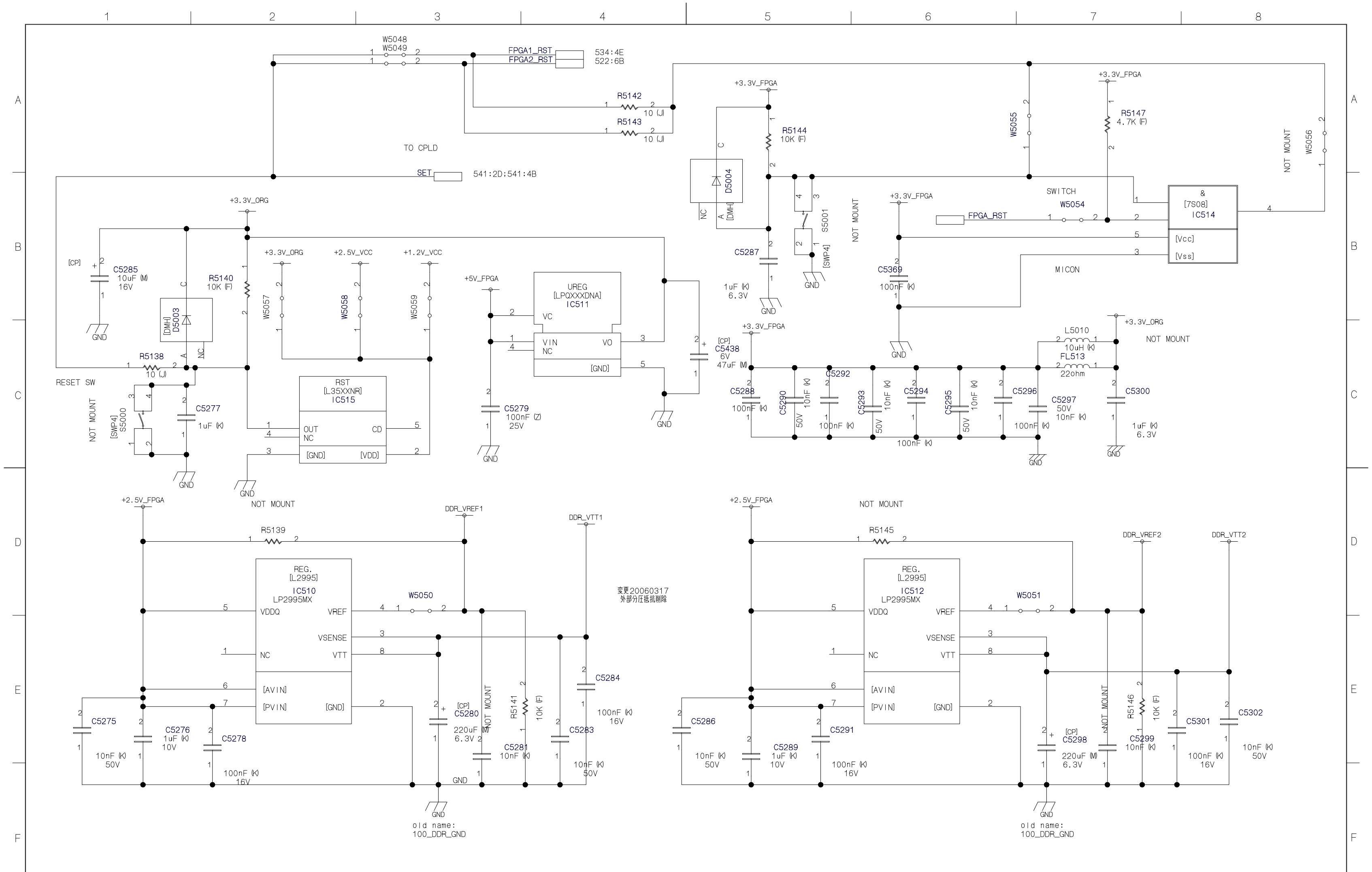
U01AS SIGNAL [550] LVDS output (PE0194)


[TP]
DP502
DP506
DP510
DP514
DP518
DP522
DP526
DP530
DP534
DP538
DP542
DP546
DP550
DP554
DP558
DP562
1
DEBUG_E00
DEBUG_E01
DEBUG_E02
DEBUG_E03
DEBUG_E04
DEBUG_E05
DEBUG_E06
DEBUG_E07
DEBUG_E08
DEBUG_E09
DEBUG_E0A
DEBUG_E0B
DEBUG_E0C
DEBUG_E0D
DEBUG_E0E
DEBUG_E0F
DP503
DP507
DP511
DP515
DP519
DP523
DP527
DP531
DP535
DP539
DP543
DP547
DP551
DP555
DP559
DP563
DEBUG_E10
DEBUG_E11
DEBUG_E12
DEBUG_E13
DEBUG_E14
DEBUG_E15
DEBUG_E16
DEBUG_E17
DEBUG_E18
DEBUG_E19
DEBUG_E1A
DEBUG_E1B
DEBUG_E1C
DEBUG_E1D
DEBUG_E1E
DEBUG_E1F
DP504
DP508
DP512
DP516
DP520
DP524
DP528
DP532
DP536
DP540
DP544
DP548
DP552
DP556
DP560
DP564
DEBUG_00
DEBUG_01
DEBUG_02
DEBUG_03
DEBUG_04
DEBUG_05
DEBUG_06
DEBUG_07
DEBUG_08
DEBUG_09
DEBUG_0A
DEBUG_0B
DEBUG_0C
DEBUG_0D
DEBUG_0E
DEBUG_0F
DP505
DP509
DP513
DP517
DP521
DP525
DP529
DP533
DP537
DP541
DP545
DP549
DP553
DP557
DP561
DP565
DEBUG_10
DEBUG_11
DEBUG_12
DEBUG_13
DEBUG_14
DEBUG_15
DEBUG_16
DEBUG_17
DEBUG_18
DEBUG_19
DEBUG_1A
DEBUG_1B
DEBUG_1C
DEBUG_1D
DEBUG_1E
DEBUG_1F

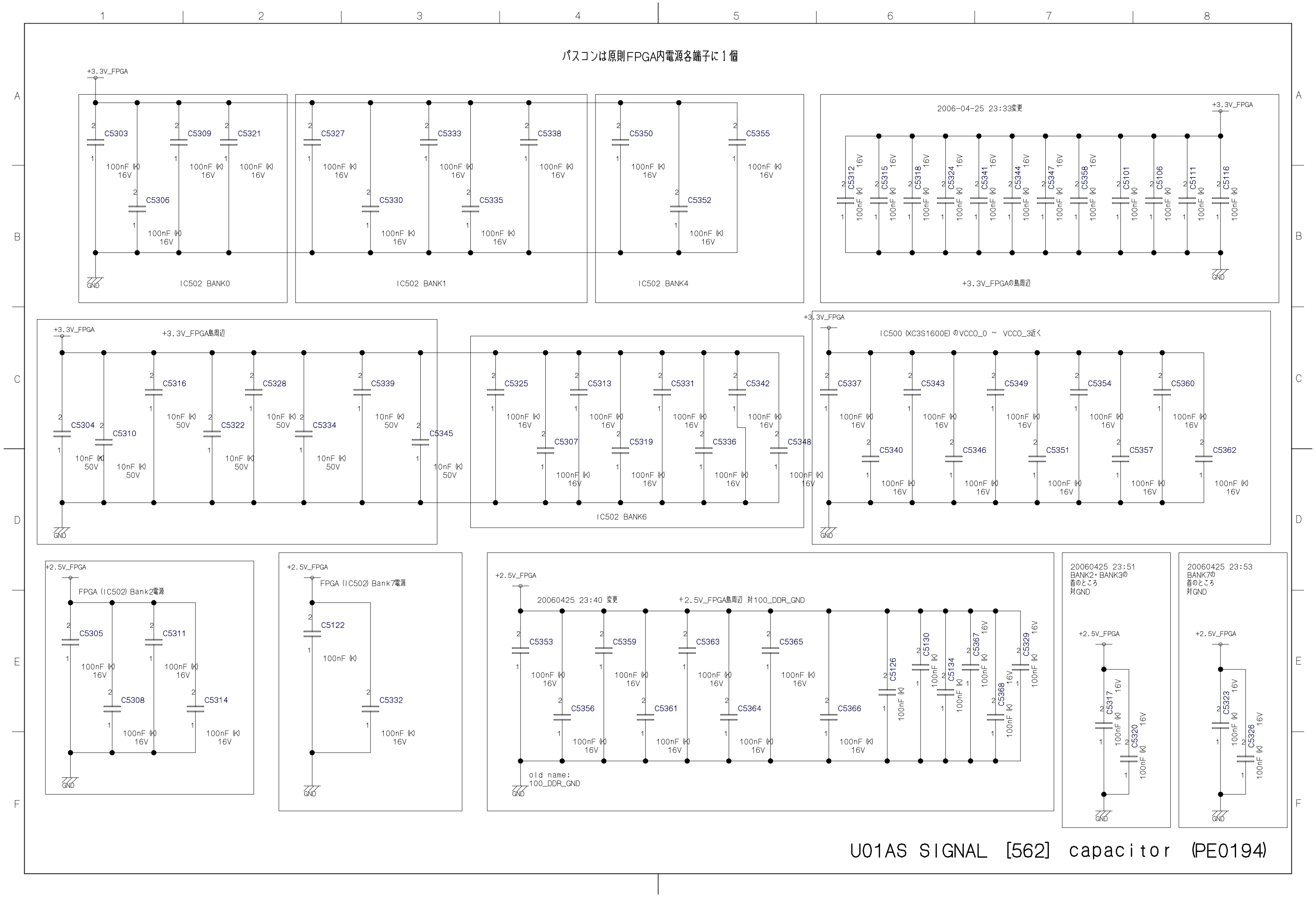
U01AS SIGNAL [552] Connectors for debug (PE0194)


+5V_100
+5V_FPGA
L5000 10uH
C5437 22uF (K) 16V
C5249 [CP] 47uF (M) 16V
C5252 1uF (K) 16V
C5528 22uF (K) 16V
C5529 22uF (K) 16V
C5259 1uF (K) 16V
UR73D1JTTD33LF
R5132 33m
[MFPLR1] Q5002
[SBD] D5001
L5003 10uH
+2.5V_VCC
C5264 1uF (K) 6.3V
C5525 22uF (K) 10V
C5268 47uF (M) 6.3V
C5271 [CP] 47uF (M) 6V
FL520 22ohm
L5006 10uH
L5007 10uH
FL511
FL512
+2.5V_FPGA
+2.5V_FPGA2
+2.5V_FPGA_DCM
+2.5V_CPLD
R5133 75K (F)
C5262 390pF (J)
R5137 160K (F)
UR73D1JTTD33LF
R5135 33m
[MFPLR1] Q5003
L5004 10uH
+1.2V_VCC
C5260 NOT MOUNT 1nF (K)
R5136 39K (F)
C5261 100pF (J) NOT MOUNT
[SBD] D5002
C5266 1uF (K) 6.3V
C5526 22uF (K) 10V
C5269 [CP] 6V 47uF (M)
C5272 [CP] 6V 47uF (M)
L5008 10uH
L5009 10uH
+1.2V_FPGA1
+1.2V_FPGA2
C5251 100pF (J) NOT MOUNT
R5129 22K (F)
C5256 4.7nF (K)
R5130 10K (J)
C5257 4.7nF (K)
C5254 100pF (J) NOT MOUNT
LTC3701E
[V-L3701E]
IC509
1 SENSE1-
2 ITH/RUN1
3 VFB1
4 SGND
5 VFB2
6 ITH/RUN2
7 PLLLPF
8 SENSE2-
16 SENSE1+
15 VIN
14 PGATE1
13 PGND
12 PGATE2
11 PGOOD
10 EXTCLK/MODE
9 SENSE2+
R5131 75K (F)
C5530 22uF (K) 10V
C5263 1uF (K) 6.3V
C5265 6.3V 1uF (K)
C5270 6.3V 1uF (K)
C5267 1uF (K) 6.3V
C5527 47uF (M) 6.3V
C5247 6.3V 10uF (K)
C5248 6.3V 1uF (K)
C5250 6.3V 10uF (K)
C5253 6.3V 1uF (K)
C5255 6.3V 10uF (K)
C5258 6.3V 1uF (K)
C5439 6.3V 10uF (K)
C5440 6.3V 1uF (K)
GND
[Lの直後に入れる！]
+5V_100
[C8A2] PJ50A
TO U04A/B POWER/LOWB [1] CONNECTOR (PE0197)
PJ50B ← PJ50A
FL508 BLM18EG221SN1D
FL509 BLM18EG221SN1D
FL510 NOT MOUNT BLM18EG221SN1D
5V2
C5273 16V 1uF (K)
C5274 2.2nF (K)
old name: F_GND
1 2 3 4 5 6 7 8
A B C D E F

U01AS SIGNAL [560] POWER 1 (PE0194)

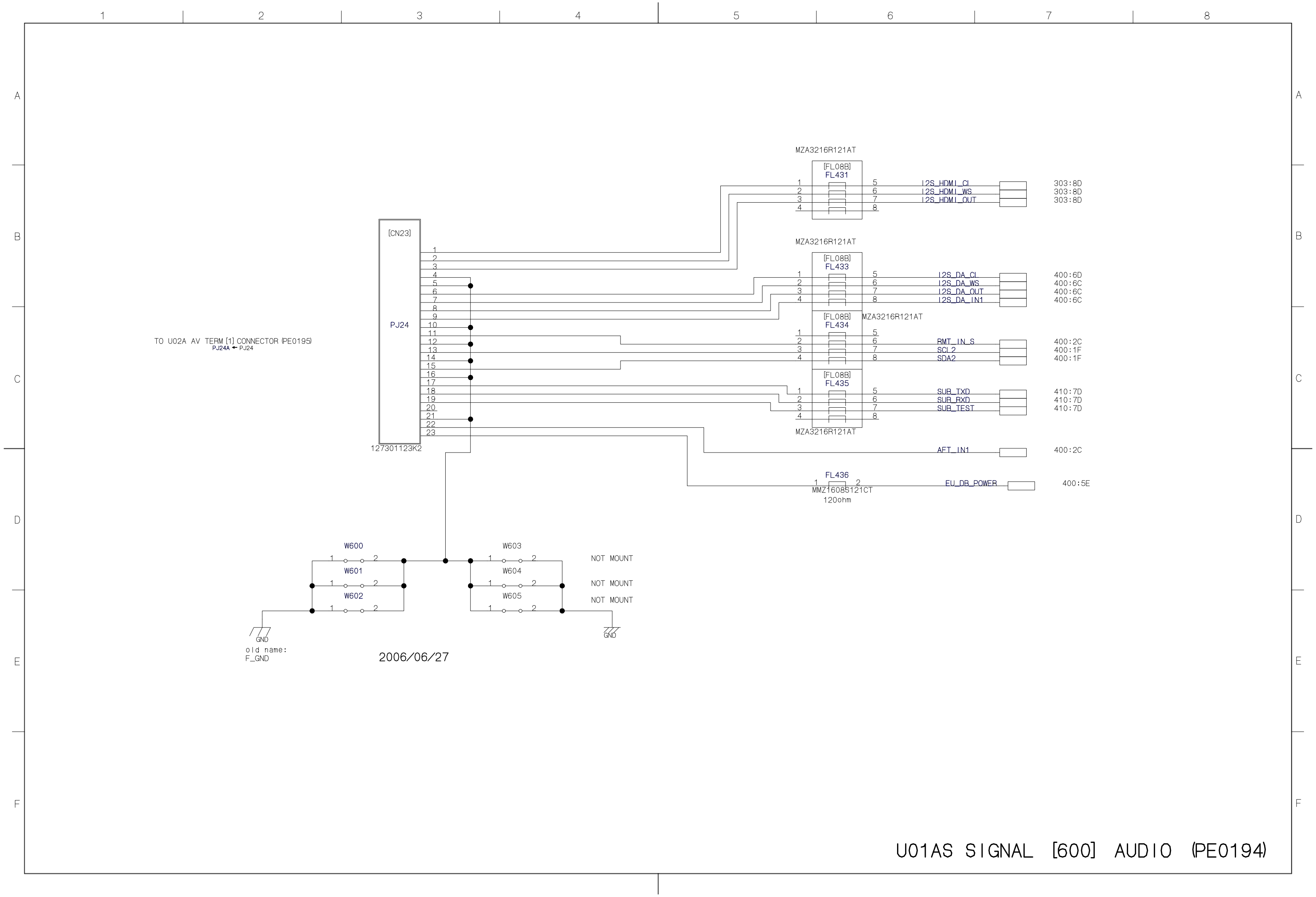

1
2
3
4
5
6
7
8
A
B
C
D
E
F
W5048
W5049
FPGA1_RST
FPGA2_RST
534:4E
522:6B
R5142
10 (J)
R5143
10 (J)
TO CPLD
SET
541:2D:541:4B
+3.3V_FPGA
R5144
10K (F)
D5004
[DMH]
NC
C5287
1uF (K)
6.3V
S5001
[SWP4]
NOT MOUNT
W5055
R5147
4.7K (F)
W5056
NOT MOUNT
SWITCH
W5054
FPGA_RST
&
[7S08]
IC514
[Vcc]
[Vss]
MICON
C5369
100nF (K)
GND
+3.3V_ORG
[CP]
C5285
10uF (M)
16V
R5140
10K (F)
D5003
[DMH]
R5138
10 (J)
RESET SW
NOT MOUNT
[SWP4]
S5000
C5277
1uF (K)
+2.5V_VCC
+1.2V_VCC
W5057
W5058
W5059
RST
[L35XXNR]
IC515
OUT
NC
CD
[GND]
[VDD]
+5V_FPGA
UREG
[LPOXXXDNA]
IC511
VC
VIN
VO
[GND]
C5279
100nF (Z)
25V
C5438
6V
47uF (M)
L5010
10uH (K)
FL513
22ohm
C5288
100nF (K)
C5290
10nF (K)
50V
C5292
100nF (K)
C5293
10nF (K)
50V
C5294
100nF (K)
C5295
10nF (K)
50V
C5296
100nF (K)
C5297
50V
10nF (K)
C5300
1uF (K)
6.3V
+2.5V_FPGA
R5139
DDR_VREF1
DDR_VTT1
REG.
[L2995]
IC510
LP2995MX
VDDQ
VREF
VSENSE
VTT
[AVIN]
[PVIN]
W5050
変更20060317
外部分圧抵抗削除
C5275
10nF (K)
50V
C5276
1uF (K)
10V
C5278
100nF (K)
16V
C5280
220uF (M)
6.3V
R5141
10K (F)
C5281
10nF (K)
C5283
10nF (K)
50V
C5284
100nF (K)
16V
old name:
100_DDR_GND
R5145
DDR_VREF2
DDR_VTT2
IC512
W5051
C5286
C5289
C5291
C5298
R5146
C5299
C5301
C5302

U01AS SIGNAL [561] POWER 2 (5V to 3.3V and VREF) (PE0194)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
パスコンは原則FPGA内電源各端子に１個
+3.3V_FPGA
C5303
C5306
C5309
C5321
100nF (K)
16V
GND
IC502 BANK0
C5327
C5330
C5333
C5335
C5338
IC502 BANK1
C5350
C5352
C5355
IC502 BANK4
2006-04-25 23:33変更
C5312
C5315
C5318
C5324
C5341
C5344
C5347
C5358
C5101
C5106
C5111
C5116
+3.3V_FPGAの島周辺
+3.3V_FPGA島周辺
C5304
C5310
C5316
C5322
C5328
C5334
C5339
C5345
10nF (K)
50V
C5325
C5307
C5313
C5319
C5331
C5336
C5342
C5348
IC502 BANK6
IC500 (XC3S1600E) のVCCO_0 ~ VCCO_3近く
C5337
C5340
C5343
C5346
C5349
C5351
C5354
C5357
C5360
C5362
+2.5V_FPGA
FPGA (IC502) Bank2電源
C5305
C5308
C5311
C5314
FPGA (IC502) Bank7電源
C5122
C5332
20060425 23:40 変更
+2.5V_FPGA島周辺 対100_DDR_GND
C5353
C5356
C5359
C5361
C5363
C5364
C5365
C5366
C5126
C5130
C5134
C5367
C5368
C5329
old name:
100_DDR_GND
20060425 23:51
BANK2・BANK3の
首のところ
対GND
C5317
C5320
20060425 23:53
BANK7の
首のところ
対GND
C5323
C5326

U01AS SIGNAL [562] capacitor (PE0194)

U01AS SIGNAL [600] AUDIO (PE0194)


1
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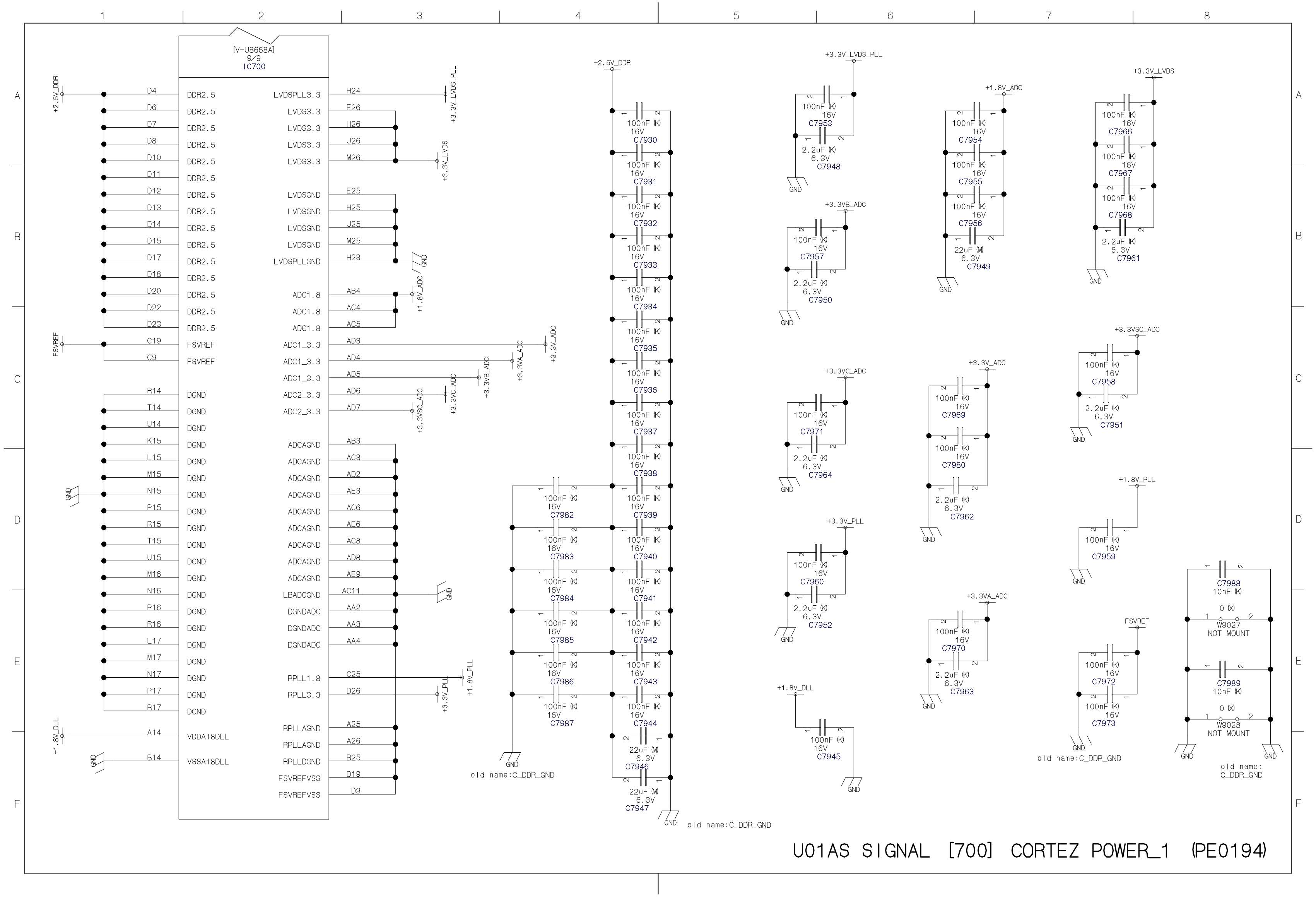
6
7
8
A
B
C
D
E
F
TO U02A AV TERM [1] CONNECTOR (PE0195)
PJ24A ← PJ24
[CN23]
PJ24
127301123K2
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
MZA3216R121AT
[FL08B]
FL431
I2S_HDMI_CL
I2S_HDMI_WS
I2S_HDMI_OUT
303:8D
303:8D
303:8D
MZA3216R121AT
[FL08B]
FL433
I2S_DA_CL
I2S_DA_WS
I2S_DA_OUT
I2S_DA_IN1
400:6D
400:6C
400:6C
400:6C
[FL08B]
FL434
MZA3216R121AT
RMT_IN_S
SCL2
SDA2
400:2C
400:1F
400:1F
[FL08B]
FL435
SUB_TXD
SUB_RXD
SUB_TEST
410:7D
410:7D
410:7D
MZA3216R121AT
AFT_IN1
400:2C
FL436
MMZ1608S121CT
120ohm
EU_DB_POWER
400:5E
W600
W601
W602
W603
W604
W605
NOT MOUNT
NOT MOUNT
NOT MOUNT
GND
old name:
F_GND
GND

2006/06/27


1
2
3
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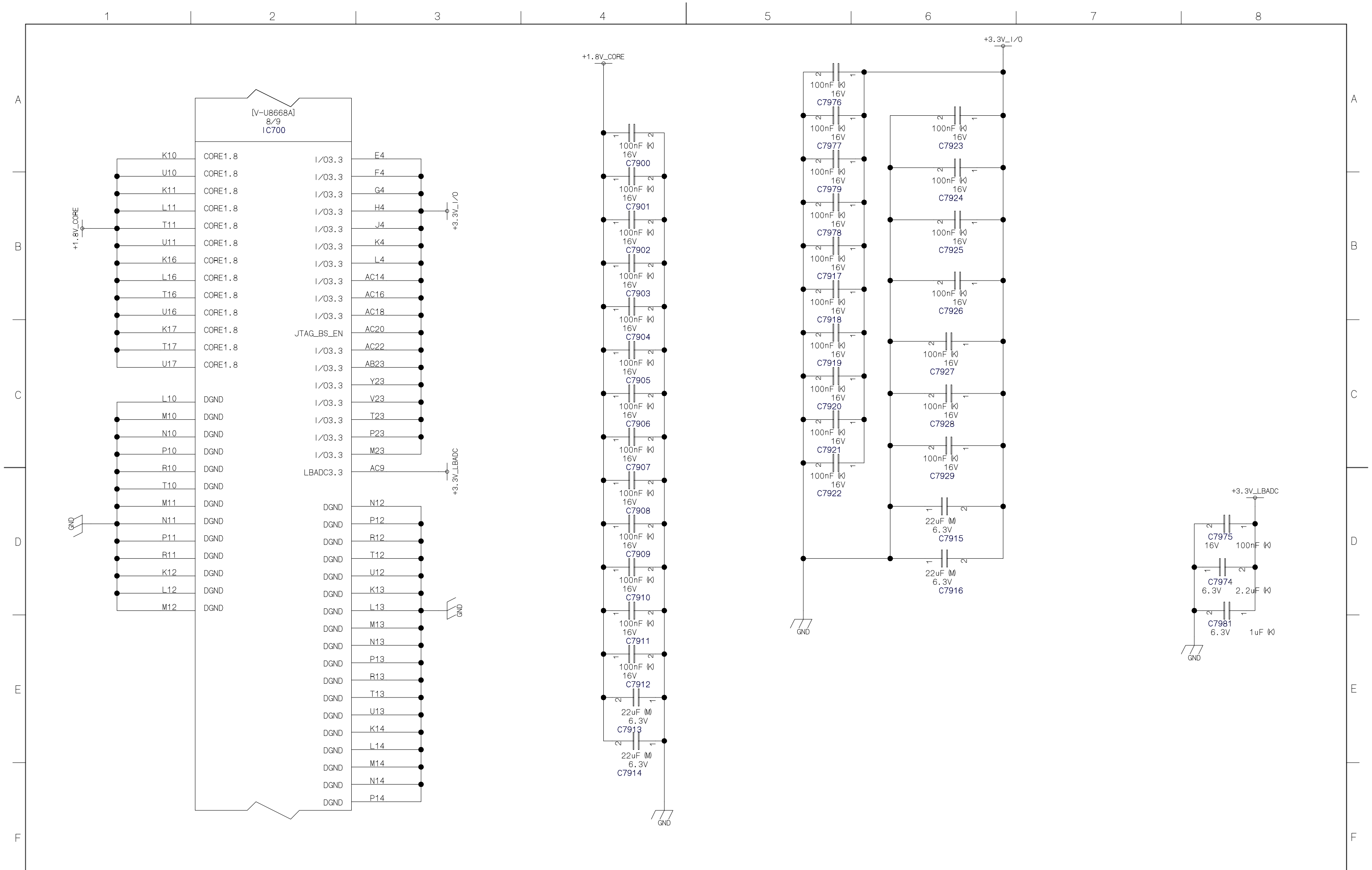
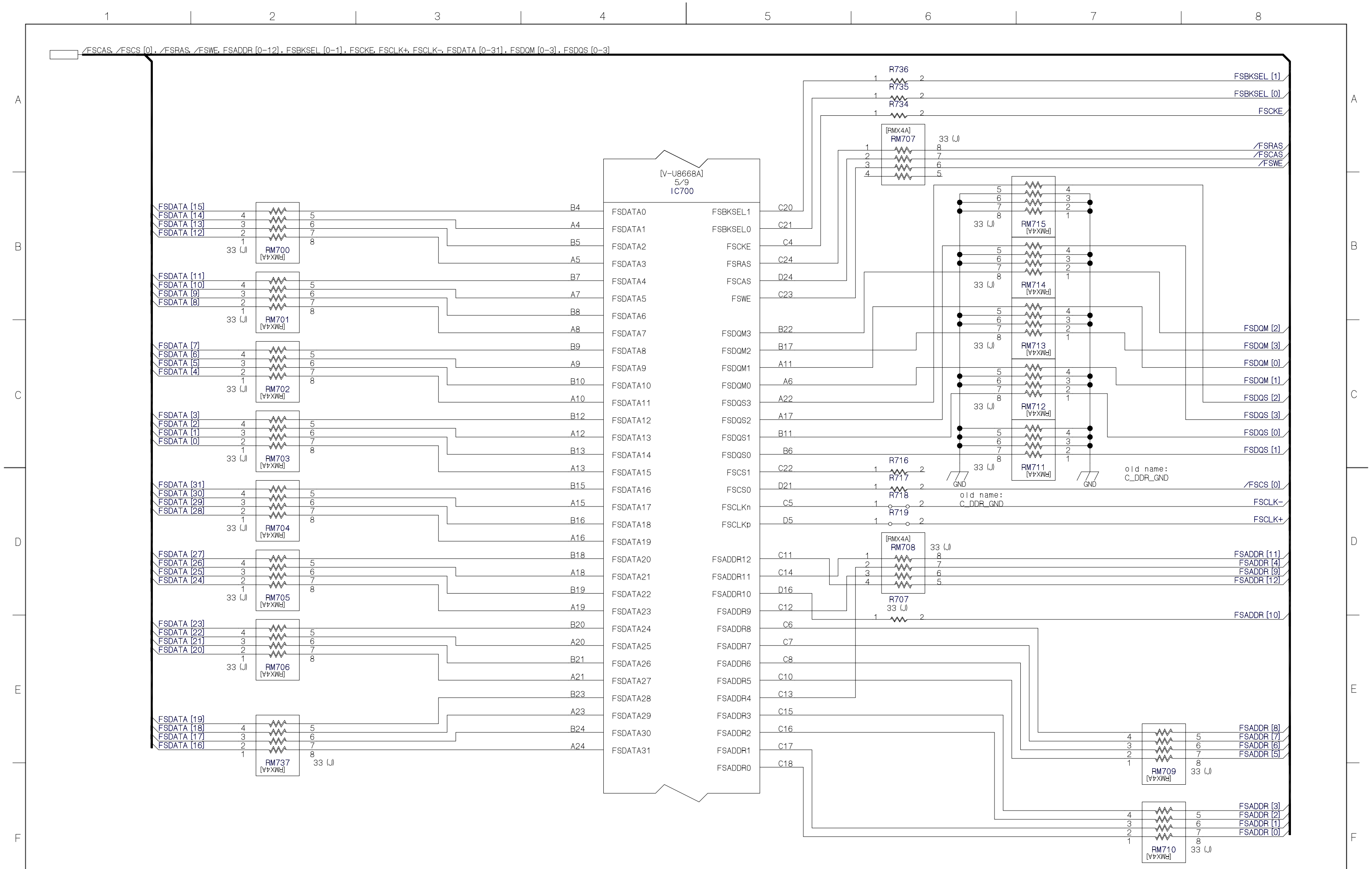
7
8
A
B
C
D
E
F
[V-U8668A]
9/9
IC700
+2.5V_DDR
D4 DDR2.5
D6 DDR2.5
D7 DDR2.5
D8 DDR2.5
D10 DDR2.5
D11 DDR2.5
D12 DDR2.5
D13 DDR2.5
D14 DDR2.5
D15 DDR2.5
D17 DDR2.5
D18 DDR2.5
D20 DDR2.5
D22 DDR2.5
D23 DDR2.5
FSVREF
C19 FSVREF
C9 FSVREF
R14 DGND
T14 DGND
U14 DGND
K15 DGND
L15 DGND
M15 DGND
N15 DGND
P15 DGND
R15 DGND
T15 DGND
U15 DGND
M16 DGND
N16 DGND
P16 DGND
R16 DGND
L17 DGND
M17 DGND
N17 DGND
P17 DGND
R17 DGND
GND
+1.8V_DLL
A14 VDDA18DLL
B14 VSSA18DLL
GND
LVDSPLL3.3 H24
+3.3V_LVDS_PLL
LVDS3.3 E26
LVDS3.3 H26
LVDS3.3 J26
LVDS3.3 M26
+3.3V_LVDS
LVDSGND E25
LVDSGND H25
LVDSGND J25
LVDSGND M25
LVDSPLLGND H23
GND
ADC1.8 AB4
ADC1.8 AC4
ADC1.8 AC5
+1.8V_ADC
ADC1_3.3 AD3
ADC1_3.3 AD4
ADC1_3.3 AD5
ADC2_3.3 AD6
ADC2_3.3 AD7
+3.3V_ADC
+3.3VA_ADC
+3.3VB_ADC
+3.3VC_ADC
+3.3VSC_ADC
ADCAGND AB3
ADCAGND AC3
ADCAGND AD2
ADCAGND AE3
ADCAGND AC6
ADCAGND AE6
ADCAGND AC8
ADCAGND AD8
ADCAGND AE9
LBADCGND AC11
GND
DGNDADC AA2
DGNDADC AA3
DGNDADC AA4
RPLL1.8 C25
RPLL3.3 D26
+3.3V_PLL
+1.8V_PLL
RPLLAGND A25
RPLLAGND A26
RPLLDGND B25
FSVREFVSS D19
FSVREFVSS D9
+2.5V_DDR
100nF (K) 16V C7930
100nF (K) 16V C7931
100nF (K) 16V C7932
100nF (K) 16V C7933
100nF (K) 16V C7934
100nF (K) 16V C7935
100nF (K) 16V C7936
100nF (K) 16V C7937
100nF (K) 16V C7938
100nF (K) 16V C7939
100nF (K) 16V C7940
100nF (K) 16V C7941
100nF (K) 16V C7942
100nF (K) 16V C7943
100nF (K) 16V C7944
22uF (M) 6.3V C7946
22uF (M) 6.3V C7947
GND
old name:C_DDR_GND
100nF (K) 16V C7982
100nF (K) 16V C7983
100nF (K) 16V C7984
100nF (K) 16V C7985
100nF (K) 16V C7986
100nF (K) 16V C7987
GND
old name:C_DDR_GND
+3.3V_LVDS_PLL
100nF (K) 16V C7953
2.2uF (K) 6.3V C7948
GND
+3.3VB_ADC
100nF (K) 16V C7957
2.2uF (K) 6.3V C7950
GND
+3.3VC_ADC
100nF (K) 16V C7971
2.2uF (K) 6.3V C7964
GND
+3.3V_PLL
100nF (K) 16V C7960
2.2uF (K) 6.3V C7952
GND
+1.8V_DLL
100nF (K) 16V C7945
GND
+1.8V_ADC
100nF (K) 16V C7954
100nF (K) 16V C7955
100nF (K) 16V C7956
22uF (M) 6.3V C7949
GND
+3.3V_ADC
100nF (K) 16V C7969
100nF (K) 16V C7980
2.2uF (K) 6.3V C7962
GND
+3.3VA_ADC
100nF (K) 16V C7970
2.2uF (K) 6.3V C7963
GND
+3.3V_LVDS
100nF (K) 16V C7966
100nF (K) 16V C7967
100nF (K) 16V C7968
2.2uF (K) 6.3V C7961
GND
+3.3VSC_ADC
100nF (K) 16V C7958
2.2uF (K) 6.3V C7951
GND
+1.8V_PLL
100nF (K) 16V C7959
GND
FSVREF
100nF (K) 16V C7972
100nF (K) 16V C7973
GND
old name:C_DDR_GND
C7988 10nF (K)
0 (X) W9027 NOT MOUNT
C7989 10nF (K)
0 (X) W9028 NOT MOUNT
GND
GND
old name: C_DDR_GND

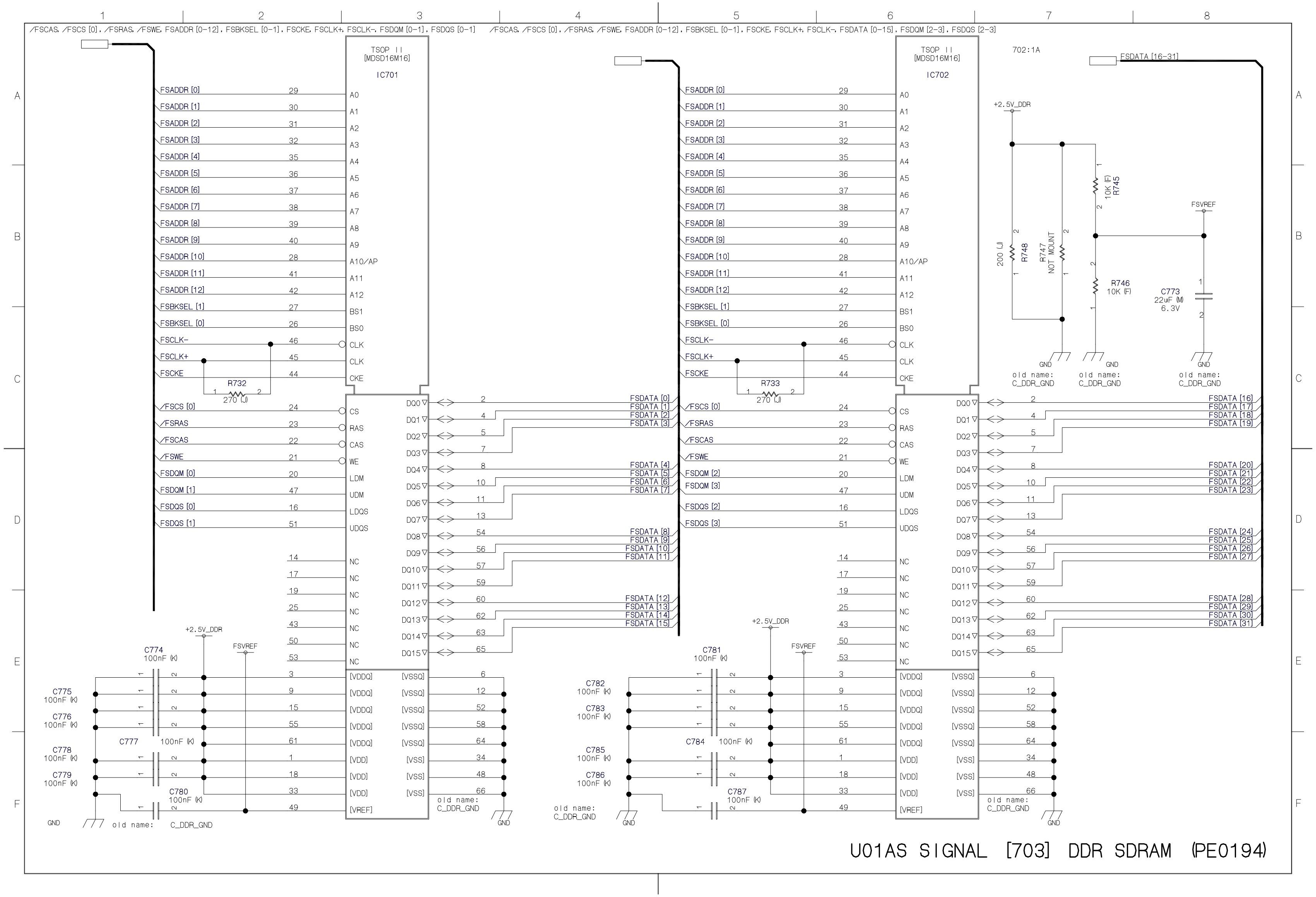
U01AS SIGNAL [700] CORTEZ POWER_1 (PE0194)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
[V-U8668A]
8/9
IC700
+1.8V_CORE
K10 CORE1.8
U10 CORE1.8
K11 CORE1.8
L11 CORE1.8
T11 CORE1.8
U11 CORE1.8
K16 CORE1.8
L16 CORE1.8
T16 CORE1.8
U16 CORE1.8
K17 CORE1.8
T17 CORE1.8
U17 CORE1.8
L10 DGND
M10 DGND
N10 DGND
P10 DGND
R10 DGND
T10 DGND
M11 DGND
N11 DGND
P11 DGND
R11 DGND
K12 DGND
L12 DGND
M12 DGND
GND
I/O3.3 E4
I/O3.3 F4
I/O3.3 G4
I/O3.3 H4
I/O3.3 J4
I/O3.3 K4
I/O3.3 L4
I/O3.3 AC14
I/O3.3 AC16
I/O3.3 AC18
JTAG_BS_EN AC20
I/O3.3 AC22
I/O3.3 AB23
I/O3.3 Y23
I/O3.3 V23
I/O3.3 T23
I/O3.3 P23
I/O3.3 M23
LBADC3.3 AC9
+3.3V_I/O
+3.3V_LBADC
DGND N12
DGND P12
DGND R12
DGND T12
DGND U12
DGND K13
DGND L13
DGND M13
DGND N13
DGND P13
DGND R13
DGND T13
DGND U13
DGND K14
DGND L14
DGND M14
DGND N14
DGND P14
GND
+1.8V_CORE
100nF (K) 16V C7900
100nF (K) 16V C7901
100nF (K) 16V C7902
100nF (K) 16V C7903
100nF (K) 16V C7904
100nF (K) 16V C7905
100nF (K) 16V C7906
100nF (K) 16V C7907
100nF (K) 16V C7908
100nF (K) 16V C7909
100nF (K) 16V C7910
100nF (K) 16V C7911
100nF (K) 16V C7912
22uF (M) 6.3V C7913
22uF (M) 6.3V C7914
GND
+3.3V_I/O
100nF (K) 16V C7976
100nF (K) 16V C7977
100nF (K) 16V C7979
100nF (K) 16V C7978
100nF (K) 16V C7917
100nF (K) 16V C7918
100nF (K) 16V C7919
100nF (K) 16V C7920
100nF (K) 16V C7921
100nF (K) 16V C7922
100nF (K) 16V C7923
100nF (K) 16V C7924
100nF (K) 16V C7925
100nF (K) 16V C7926
100nF (K) 16V C7927
100nF (K) 16V C7928
100nF (K) 16V C7929
22uF (M) 6.3V C7915
22uF (M) 6.3V C7916
GND
+3.3V_LBADC
C7975 16V 100nF (K)
C7974 6.3V 2.2uF (K)
C7981 6.3V 1uF (K)
GND

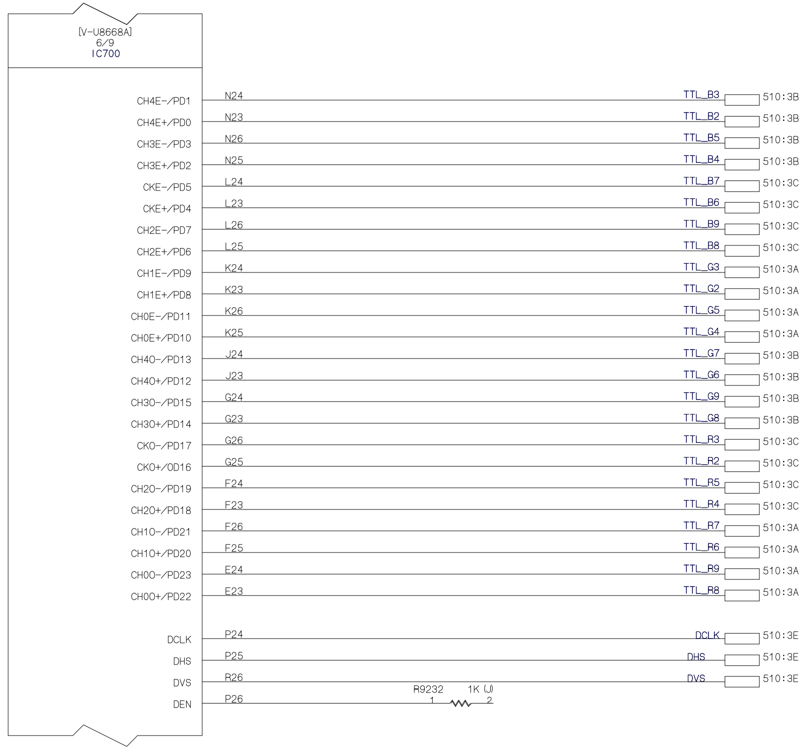
U01AS SIGNAL [701] CORTEZ POWER_2 (PE0194)


/FSCAS, /FSCS [0], /FSRAS, /FSWE, FSADDR [0-12], FSBKSEL [0-1], FSCKE, FSCLK+, FSCLK-, FSDATA [0-31], FSDQM [0-3], FSDQS [0-3]
[V-U8668A]
5/9
IC700
FSDATA0
FSDATA1
FSDATA2
FSDATA3
FSDATA4
FSDATA5
FSDATA6
FSDATA7
FSDATA8
FSDATA9
FSDATA10
FSDATA11
FSDATA12
FSDATA13
FSDATA14
FSDATA15
FSDATA16
FSDATA17
FSDATA18
FSDATA19
FSDATA20
FSDATA21
FSDATA22
FSDATA23
FSDATA24
FSDATA25
FSDATA26
FSDATA27
FSDATA28
FSDATA29
FSDATA30
FSDATA31
FSBKSEL1
FSBKSEL0
FSCKE
FSRAS
FSCAS
FSWE
FSDQM3
FSDQM2
FSDQM1
FSDQM0
FSDQS3
FSDQS2
FSDQS1
FSDQS0
FSCS1
FSCS0
FSCLKn
FSCLKp
FSADDR12
FSADDR11
FSADDR10
FSADDR9
FSADDR8
FSADDR7
FSADDR6
FSADDR5
FSADDR4
FSADDR3
FSADDR2
FSADDR1
FSADDR0
RM700
RM701
RM702
RM703
RM704
RM705
RM706
RM737
RM707
RM708
RM709
RM710
RM711
RM712
RM713
RM714
RM715
[RMX4A]
33 (J)
R734
R735
R736
R707
R716
R717
R718
R719
GND
old name:
C_DDR_GND
FSBKSEL [1]
FSBKSEL [0]
FSCKE
/FSRAS
/FSCAS
/FSWE
FSDQM [2]
FSDQM [3]
FSDQM [0]
FSDQM [1]
FSDQS [2]
FSDQS [3]
FSDQS [0]
FSDQS [1]
/FSCS [0]
FSCLK-
FSCLK+
FSADDR [11]
FSADDR [4]
FSADDR [9]
FSADDR [12]
FSADDR [10]
FSADDR [8]
FSADDR [7]
FSADDR [6]
FSADDR [5]
FSADDR [3]
FSADDR [2]
FSADDR [1]
FSADDR [0]
FSDATA [0]–FSDATA [31]
1 2 3 4 5 6 7 8
A B C D E F

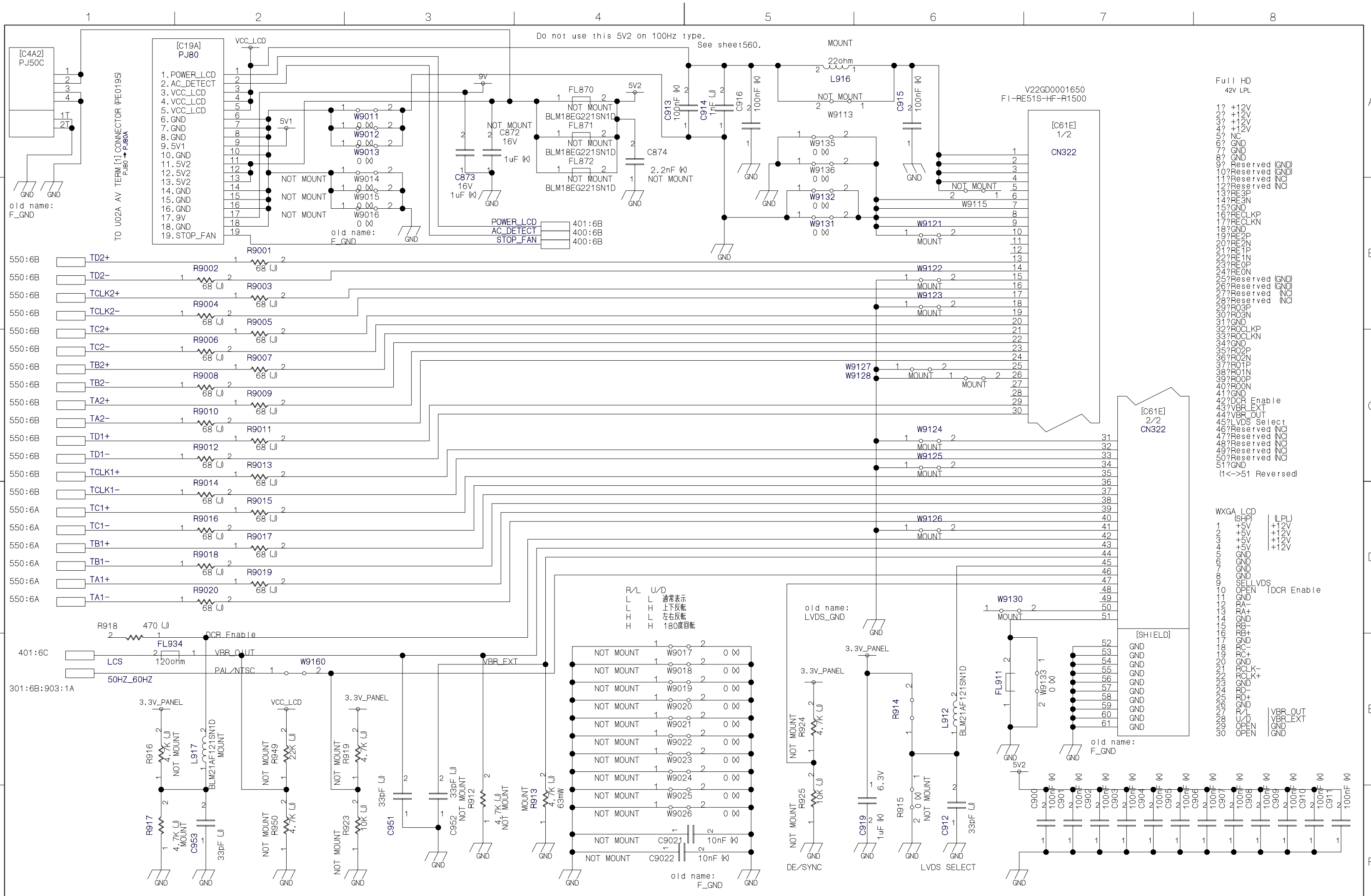
U01AS SIGNAL [702] CORTEZ DDR I/F (PE0194)


/FSCAS, /FSCS [0], /FSRAS, /FSWE, FSADDR [0-12], FSBKSEL [0-1], FSCKE, FSCLK+, FSCLK-, FSDQM [0-1], FSDQS [0-1]
/FSCAS, /FSCS [0], /FSRAS, /FSWE, FSADDR [0-12], FSBKSEL [0-1], FSCKE, FSCLK+, FSCLK-, FSDATA [0-15], FSDQM [2-3], FSDQS [2-3]
FSDATA [16-31]
702:1A
TSOP II
[MDSD16M16]
IC701
IC702
FSADDR [0]
FSADDR [1]
FSADDR [2]
FSADDR [3]
FSADDR [4]
FSADDR [5]
FSADDR [6]
FSADDR [7]
FSADDR [8]
FSADDR [9]
FSADDR [10]
FSADDR [11]
FSADDR [12]
FSBKSEL [1]
FSBKSEL [0]
FSCLK-
FSCLK+
FSCKE
/FSCS [0]
/FSRAS
/FSCAS
/FSWE
FSDQM [0]
FSDQM [1]
FSDQS [0]
FSDQS [1]
FSDQM [2]
FSDQM [3]
FSDQS [2]
FSDQS [3]
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10/AP
A11
A12
BS1
BS0
CLK
CLK
CKE
CS
RAS
CAS
WE
LDM
UDM
LDQS
UDQS
NC
DQ0
DQ1
DQ2
DQ3
DQ4
DQ5
DQ6
DQ7
DQ8
DQ9
DQ10
DQ11
DQ12
DQ13
DQ14
DQ15
[VDDQ]
[VDD]
[VREF]
[VSSQ]
[VSS]
FSDATA [0]
FSDATA [1]
FSDATA [2]
FSDATA [3]
FSDATA [4]
FSDATA [5]
FSDATA [6]
FSDATA [7]
FSDATA [8]
FSDATA [9]
FSDATA [10]
FSDATA [11]
FSDATA [12]
FSDATA [13]
FSDATA [14]
FSDATA [15]
FSDATA [16]
FSDATA [17]
FSDATA [18]
FSDATA [19]
FSDATA [20]
FSDATA [21]
FSDATA [22]
FSDATA [23]
FSDATA [24]
FSDATA [25]
FSDATA [26]
FSDATA [27]
FSDATA [28]
FSDATA [29]
FSDATA [30]
FSDATA [31]
R732
270 (J)
R733
270 (J)
+2.5V_DDR
FSVREF
R745
10K (F)
R746
10K (F)
R747
NOT MOUNT
R748
200 (J)
C773
22uF (M)
6.3V
C774
C775
C776
C777
C778
C779
C780
C781
C782
C783
C784
C785
C786
C787
100nF (K)
GND
old name:
C_DDR_GND
A
B
C
D
E
F
1
2
3
4
5
6
7
8

U01AS SIGNAL [703] DDR SDRAM (PE0194)


[V-U8668A]
6/9
IC700
CH4E−/PD1 N24 TTL_B3 510:3B
CH4E+/PD0 N23 TTL_B2 510:3B
CH3E−/PD3 N26 TTL_B5 510:3B
CH3E+/PD2 N25 TTL_B4 510:3B
CKE−/PD5 L24 TTL_B7 510:3C
CKE+/PD4 L23 TTL_B6 510:3C
CH2E−/PD7 L26 TTL_B9 510:3C
CH2E+/PD6 L25 TTL_B8 510:3C
CH1E−/PD9 K24 TTL_G3 510:3A
CH1E+/PD8 K23 TTL_G2 510:3A
CH0E−/PD11 K26 TTL_G5 510:3A
CH0E+/PD10 K25 TTL_G4 510:3A
CH4O−/PD13 J24 TTL_G7 510:3B
CH4O+/PD12 J23 TTL_G6 510:3B
CH3O−/PD15 G24 TTL_G9 510:3B
CH3O+/PD14 G23 TTL_G8 510:3B
CKO−/PD17 G26 TTL_R3 510:3C
CKO+/OD16 G25 TTL_R2 510:3C
CH2O−/PD19 F24 TTL_R5 510:3C
CH2O+/PD18 F23 TTL_R4 510:3C
CH1O−/PD21 F26 TTL_R7 510:3A
CH1O+/PD20 F25 TTL_R6 510:3A
CH0O−/PD23 E24 TTL_R9 510:3A
CH0O+/PD22 E23 TTL_R8 510:3A
DCLK P24 DCLK 510:3E
DHS P25 DHS 510:3E
DVS R26 DVS 510:3E
DEN P26
R9232 1K (J)
1 2

U01AS SIGNAL [900] CORTEZ LVDS_OUT (PE0194)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
[C4A2]
PJ50C
1T
2T
GND
old name:
F_GND
TO U02A AV TERM [1] CONNECTOR (PE0195)
PJ80 → PJ80A
[C19A]
PJ80
1. POWER_LCD
2. AC_DETECT
3. VCC_LCD
4. VCC_LCD
5. VCC_LCD
6. GND
7. GND
8. GND
9. 5V1
10. GND
11. 5V2
12. 5V2
13. 5V2
14. GND
15. GND
16. GND
17. 9V
18. GND
19. STOP_FAN
VCC_LCD
5V1
W9011
W9012
W9013
W9014
W9015
W9016
0 (X)
NOT MOUNT
old name:
F_GND
Do not use this 5V2 on 100Hz type.
See sheet560.
9V
NOT MOUNT
C872
16V
1uF (K)
C873
16V
1uF (K)
FL870
FL871
FL872
BLM18EG221SN1D
5V2
C874
2.2nF (K)
NOT MOUNT
POWER_LCD
AC_DETECT
STOP_FAN
401:6B
400:6B
400:6B
C913
100nF (K)
C914
1nF (J)
C916
100nF (K)
MOUNT
22ohm
L916
NOT MOUNT
W9113
C915
100nF (K)
W9135
W9136
W9132
W9131
V22GD0001650
FI-RE51S-HF-R1500
[C61E]
1/2
CN322
NOT MOUNT
W9115
W9121
W9122
W9123
W9127
W9128
W9124
W9125
W9126
MOUNT
[C61E]
2/2
CN322
550:6B
550:6A
TD2+
TD2−
TCLK2+
TCLK2−
TC2+
TC2−
TB2+
TB2−
TA2+
TA2−
TD1+
TD1−
TCLK1+
TCLK1−
TC1+
TC1−
TB1+
TB1−
TA1+
TA1−
R9001
R9002
R9003
R9004
R9005
R9006
R9007
R9008
R9009
R9010
R9011
R9012
R9013
R9014
R9015
R9016
R9017
R9018
R9019
R9020
68 (J)
R918
470 (J)
DCR Enable
FL934
120ohm
VBR_OUT
W9160
401:6C
LCS
PAL/NTSC
301:6B:903:1A
50HZ_60HZ
VBR_EXT
W9017
W9018
W9019
W9020
W9021
W9022
W9023
W9024
W9025
W9026
C9021
10nF (K)
C9022
10nF (K)
old name:
F_GND
old name:
LVDS_GND
W9130
FL911
W9133
[SHIELD]
old name:
F_GND
3.3V_PANEL
R916
4.7K (J)
NOT MOUNT
R917
4.7K (J)
MOUNT
L917
BLM21AF121SN1D
MOUNT
C953
33pF (J)
R949
22K (J)
R950
4.7K (J)
R919
4.7K (J)
R923
10K (J)
C951
33pF (J)
C952
33pF (J)
R912
4.7K (J)
R913
4.7K (J)
63mW
R924
4.7K (J)
R925
10K (J)
DE/SYNC
C919
6.3V
1uF (K)
R914
R915
0 (X)
LVDS SELECT
L912
BLM21AF121SN1D
C912
33pF (J)
C900
C901
C902
C903
C904
C905
C906
C907
C908
C909
C910
C911
100nF (K)

R/L U/D
L L 通常表示
L H 上下反転
H L 左右反転
H H 180度回転

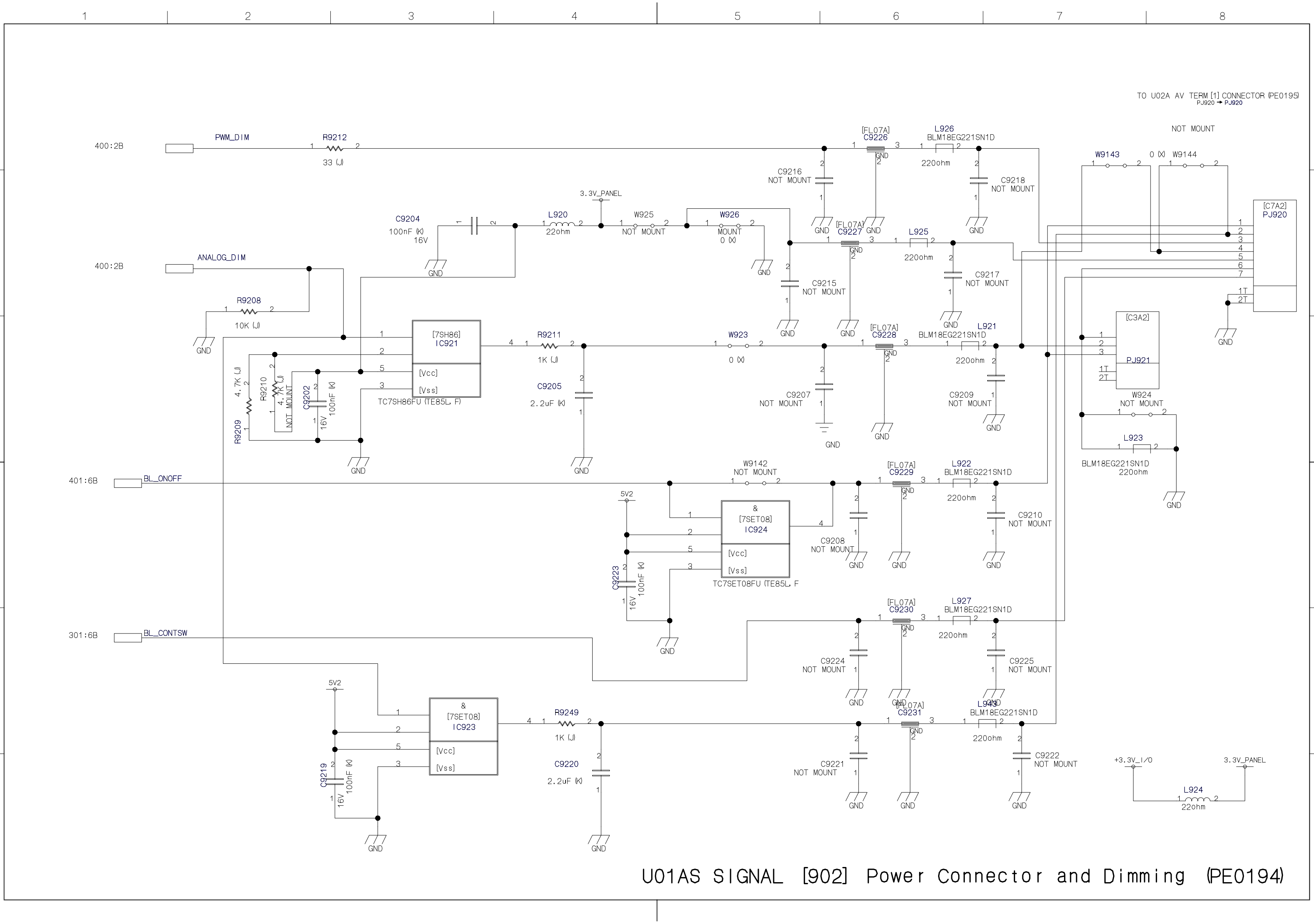
Full HD
42V LPL

1? +12V
2? +12V
3? +12V
4? +12V
5? NC
6? GND
7? GND
8? GND
9? Reserved (GND)
10?Reserved (GND)
11?Reserved (NC)
12?Reserved (NC)
13?RE3P
14?RE3N
15?GND
16?RECLKP
17?RECLKN
18?GND
19?RE2P
20?RE2N
21?RE1P
22?RE1N
23?RE0P
24?RE0N
25?Reserved (GND)
26?Reserved (GND)
27?Reserved (NC)
28?Reserved (NC)
29?RO3P
30?RO3N
31?GND
32?ROCLKP
33?ROCLKN
34?GND
35?RO2P
36?RO2N
37?RO1P
38?RO1N
39?RO0P
40?RO0N
41?GND
42?DCR Enable
43?VBR_EXT
44?VBR_OUT
45?LVDS Select
46?Reserved (NC)
47?Reserved (NC)
48?Reserved (NC)
49?Reserved (NC)
50?Reserved (NC)
51?GND
(1<->51 Reversed)

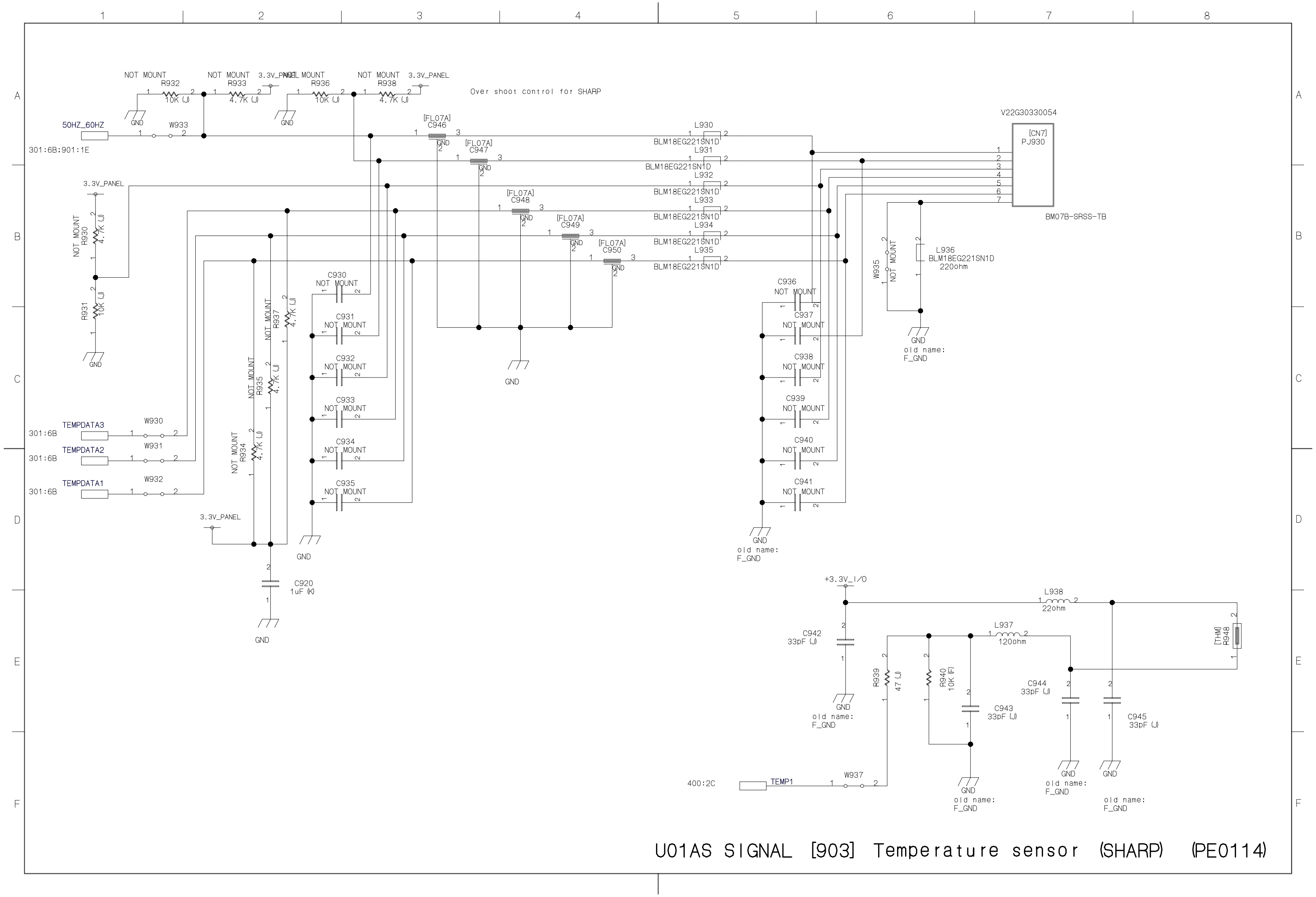
WXGA LCD

	(SHP)	(LPL)
1	+5V	+12V
2	+5V	+12V
3	+5V	+12V
4	+5V	+12V
5	GND	
6	GND	
7	GND	
8	GND	
9	SELLVDS	
10	OPEN	DCR Enable
11	GND	
12	RA−	
13	RA+	
14	GND	
15	RB−	
16	RB+	
17	GND	
18	RC−	
19	RC+	
20	GND	
21	RCLK−	
22	RCLK+	
23	GND	
24	RD−	
25	RD+	
26	GND	
27	R/L	VBR_OUT
28	U/D	VBR_EXT
29	OPEN	GND
30	OPEN	GND

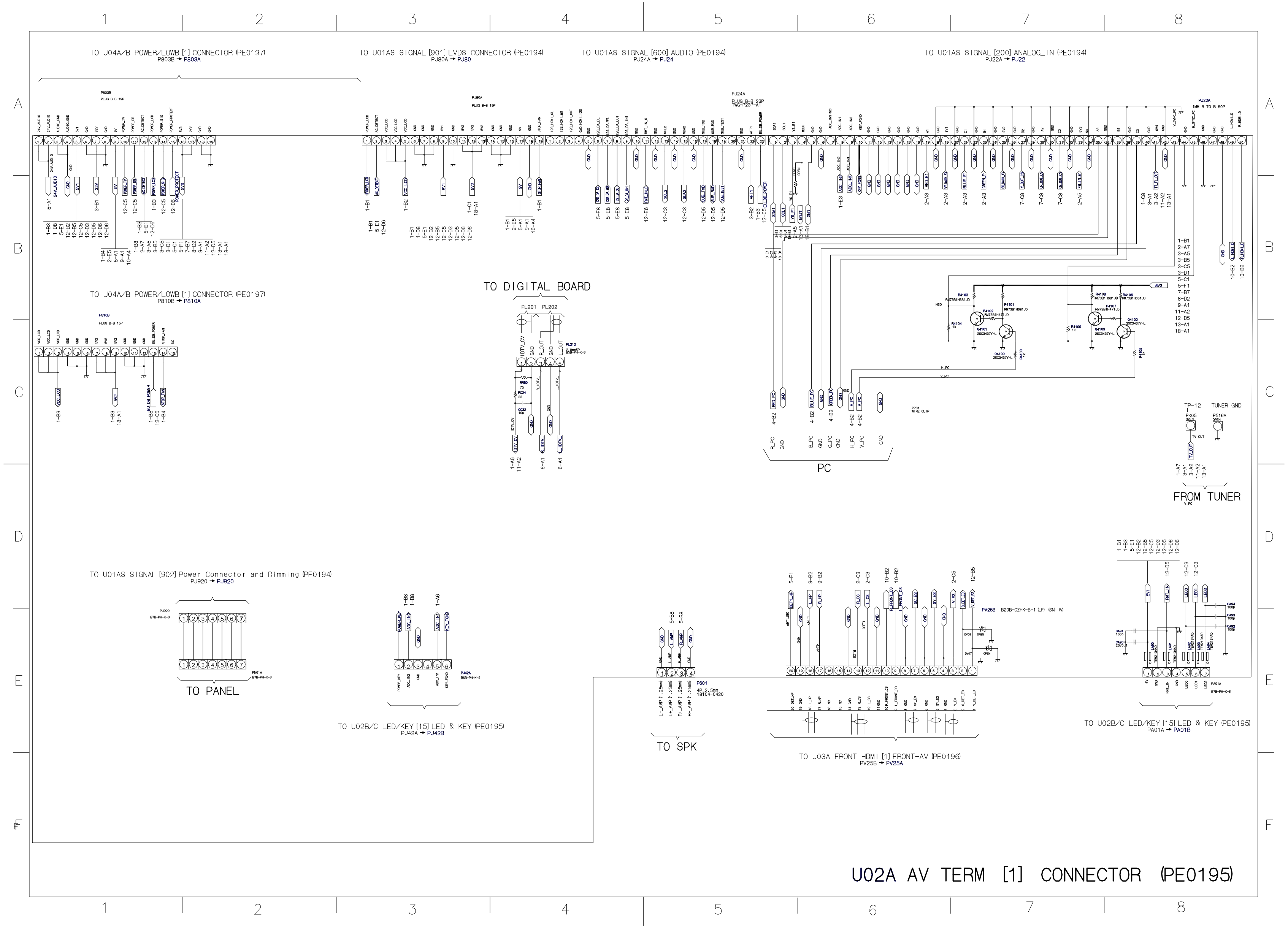
U01AS SIGNAL [901] LVDS CONNECTOR (PE0194)


TO U02A AV TERM [1] CONNECTOR (PE0195)
PJ920 → PJ920
400:2B
PWM_DIM
R9212
33 (J)
[FL07A]
C9226
L926
BLM18EG221SN1D
220ohm
C9216
NOT MOUNT
C9218
NOT MOUNT
NOT MOUNT
W9143
0 (X) W9144
[C7A2]
PJ920
C9204
100nF (K)
16V
L920
22ohm
3.3V_PANEL
W925
NOT MOUNT
W926
MOUNT
0 (X)
[FL07A]
C9227
L925
220ohm
C9215
NOT MOUNT
C9217
NOT MOUNT
400:2B
ANALOG_DIM
R9208
10K (J)
[7SH86]
IC921
[Vcc]
[Vss]
TC7SH86FU (TE85L, F)
R9211
1K (J)
W923
0 (X)
[FL07A]
C9228
BLM18EG221SN1D
L921
220ohm
[C3A2]
PJ921
C9205
2.2uF (K)
C9207
NOT MOUNT
C9209
NOT MOUNT
W924
NOT MOUNT
L923
BLM18EG221SN1D
220ohm
4.7K (J)
R9209
R9210
4.7K (J)
NOT MOUNT
C9202
16V
100nF (K)
401:6B
BL_ONOFF
W9142
NOT MOUNT
[FL07A]
C9229
L922
BLM18EG221SN1D
220ohm
5V2
&
[7SET08]
IC924
TC7SET08FU (TE85L, F)
C9208
NOT MOUNT
C9210
NOT MOUNT
C9223
16V
100nF (K)
301:6B
BL_CONTSW
[FL07A]
C9230
L927
BLM18EG221SN1D
220ohm
C9224
NOT MOUNT
C9225
NOT MOUNT
5V2
&
[7SET08]
IC923
R9249
1K (J)
C9220
2.2uF (K)
[FL07A]
C9231
L943
BLM18EG221SN1D
220ohm
C9221
NOT MOUNT
C9222
NOT MOUNT
C9219
16V
100nF (K)
+3.3V_I/O
3.3V_PANEL
L924
22ohm
GND

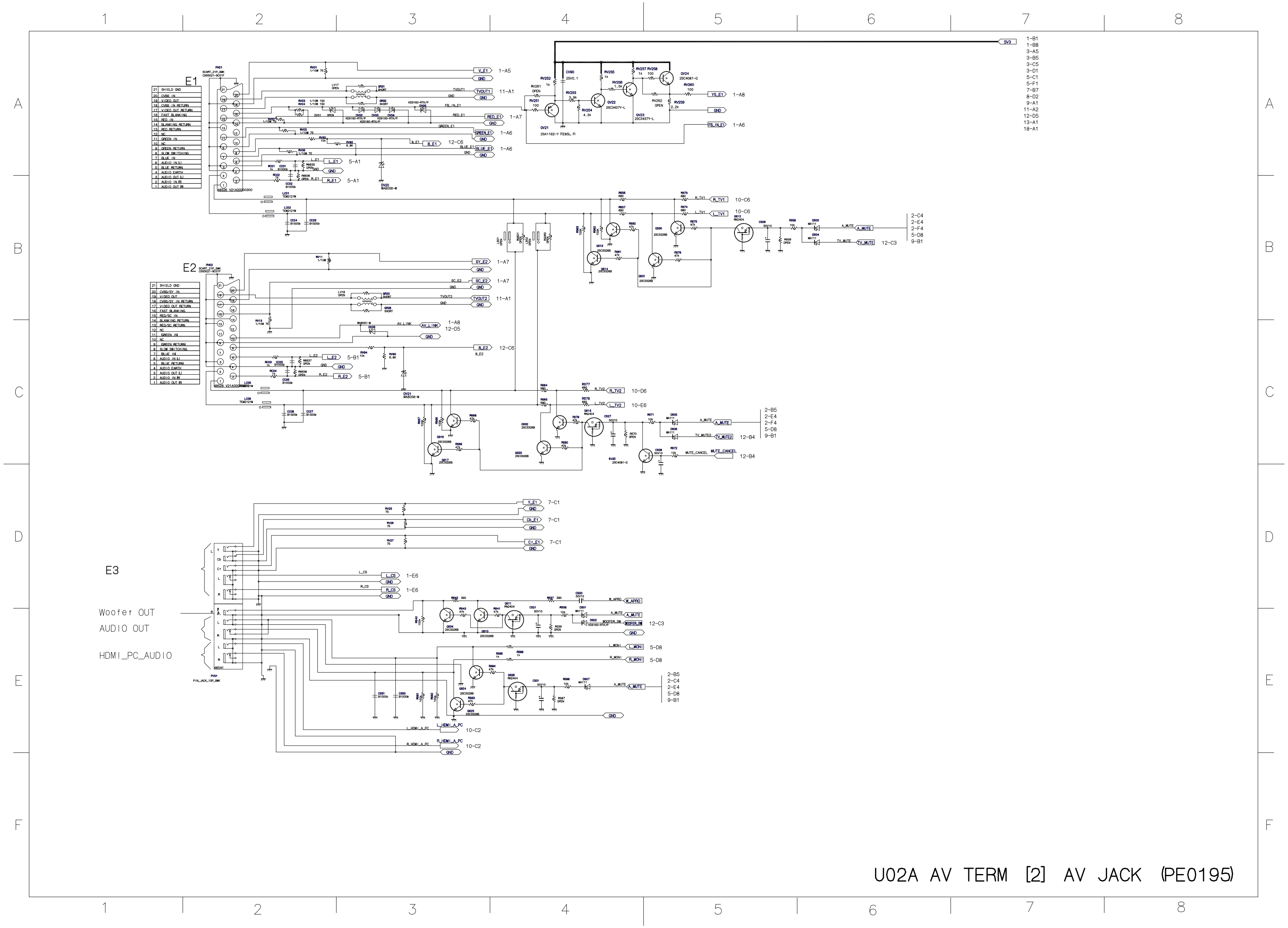
U01AS SIGNAL [902] Power Connector and Dimming (PE0194)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
NOT MOUNT
R932
10K (J)
NOT MOUNT
R933
4.7K (J)
3.3V_PANEL
NOT MOUNT
R936
10K (J)
NOT MOUNT
R938
4.7K (J)
3.3V_PANEL
Over shoot control for SHARP
GND
50HZ_60HZ
301:6B:901:1E
W933
[FL07A]
C946
[FL07A]
C947
[FL07A]
C948
[FL07A]
C949
[FL07A]
C950
L930
BLM18EG221SN1D
L931
BLM18EG221SN1D
L932
BLM18EG221SN1D
L933
BLM18EG221SN1D
L934
BLM18EG221SN1D
L935
BLM18EG221SN1D
V22G30330054
[CN7]
PJ930
BM07B-SRSS-TB
3.3V_PANEL
NOT MOUNT
R930
4.7K (J)
R931
10K (J)
C930
NOT MOUNT
C931
NOT MOUNT
C932
NOT MOUNT
C933
NOT MOUNT
C934
NOT MOUNT
C935
NOT MOUNT
NOT MOUNT
R937
4.7K (J)
NOT MOUNT
R935
4.7K (J)
NOT MOUNT
R934
4.7K (J)
TEMPDATA3
301:6B
W930
TEMPDATA2
301:6B
W931
TEMPDATA1
301:6B
W932
3.3V_PANEL
C920
1uF (K)
GND
C936
NOT MOUNT
C937
NOT MOUNT
C938
NOT MOUNT
C939
NOT MOUNT
C940
NOT MOUNT
C941
NOT MOUNT
GND
old name:
F_GND
W935
NOT MOUNT
L936
BLM18EG221SN1D
220ohm
GND
old name:
F_GND
+3.3V_I/O
L938
22ohm
C942
33pF (J)
L937
120ohm
[THM]
R948
R939
47 (J)
R940
10K (F)
C943
33pF (J)
C944
33pF (J)
C945
33pF (J)
400:2C
TEMP1
W937
GND
old name:
F_GND

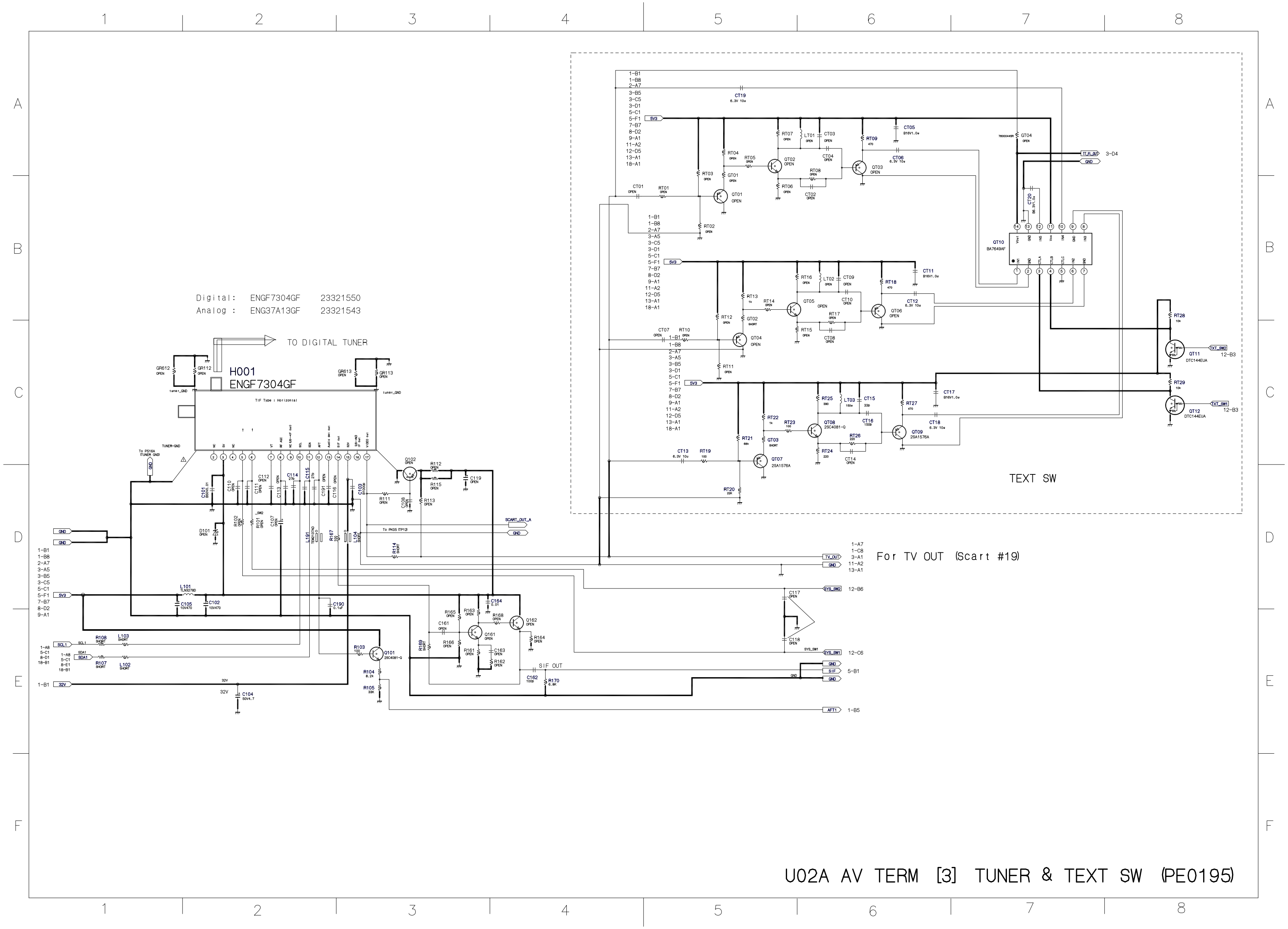
U01AS SIGNAL [903] Temperature sensor (SHARP) (PE0114)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
TO U04A/B POWER/LOWB [1] CONNECTOR (PE0197)
P803B → P803A
TO U01AS SIGNAL [901] LVDS CONNECTOR (PE0194)
PJ80A → PJ80
TO U01AS SIGNAL [600] AUDIO (PE0194)
PJ24A → PJ24
TO U01AS SIGNAL [200] ANALOG_IN (PE0194)
PJ22A → PJ22
P803B
PLUG B-B 19P
PJ80A
PLUG B-B 19P
PJ24A
PLUG B-B 23P
PJ22A
1MM B TO B 50P
TO U04A/B POWER/LOWB [1] CONNECTOR (PE0197)
P810B → P810A
P810B
PLUG B-B 15P
TO DIGITAL BOARD
PL201
PL202
PL212
R4102
R4101
R4103
R4104
R4105
R4106
R4107
R4108
R4109
Q4100
Q4101
Q4102
Q4103
5V3
H_PC
V_PC
R_PC
GND
B_PC
G_PC
PC
TP-12
TUNER GND
PK05
PS16A
TV_OUT
FROM TUNER
TO U01AS SIGNAL [902] Power Connector and Dimming (PE0194)
PJ920 → PJ920
PJ920
TO PANEL
PJ42A
TO U02B/C LED/KEY [15] LED & KEY (PE0195)
PJ42A → PJ42B
P601
L-_AMP
L+_AMP
R+_AMP
R-_AMP
TO SPK
PV25B
TO U03A FRONT HDMI [1] FRONT-AV (PE0196)
PV25B → PV25A
PA01A
TO U02B/C LED/KEY [15] LED & KEY (PE0195)
PA01A → PA01B

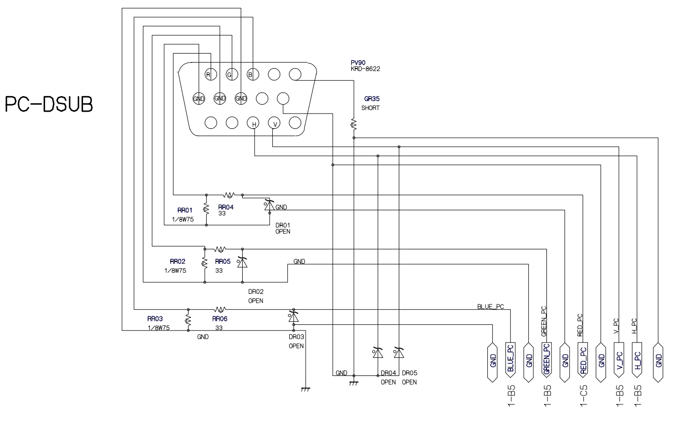
U02A AV TERM [1] CONNECTOR (PE0195)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
E1
PH01
SCART_21P_SMK
CSS5021-9C01F
21 SHIELD GND
20 CVBS IN
19 VIDEO OUT
18 CVBS IN RETURN
17 VIDEO OUT RETURN
16 FAST BLANKING
15 RED IN
14 BLANKING RETURN
13 RED RETURN
12 NC
11 GREEN IN
10 NC
9 GREEN RETURN
8 SLOW SWITCHING
7 BLUE IN
6 AUDIO IN (L)
5 BLUE RETURN
4 AUDIO EARTH
3 AUDIO OUT (L)
2 AUDIO IN (R)
1 AUDIO OUT (R)
48526 V21A000
E2
PH02
SCART_21P_SMK
CSS5021-9C01F
21 SHIELD GND
20 CVBS/SY IN
19 VIDEO OUT
18 CVBS/SY IN RETURN
17 VIDEO OUT RETURN
16 FAST BLANKING
15 RED/SC IN
14 BLANKING RETURN
13 RED/SC RETURN
12 NC
11 (GREEN IN)
10 NC
9 (GREEN RETURN)
8 SLOW SWITCHING
7 (BLUE IN)
6 AUDIO IN (L)
5 (BLUE RETURN)
4 AUDIO EARTH
3 AUDIO OUT (L)
2 AUDIO IN (R)
1 AUDIO OUT (R)
48526 V21A000
SV3
1-B1
1-B8
3-A5
3-B5
3-C5
3-D1
5-C1
5-F1
7-B7
8-D2
9-A1
11-A2
12-D5
13-A1
18-A1
Y_E1 1-A5
GND
TVOUT1 11-A1
RED_E1 1-A7
GREEN_E1 1-A6
B_E1 12-C6
BLUE_E1 1-A6
L_E1 5-A1
R_E1 5-A1
YS_E1 1-A8
FB_IN_E1 1-A6
R_TV1 10-C6
L_TV1 10-C6
A_MUTE
TV_MUTE 12-C3
2-C4
2-E4
2-F4
5-D8
9-B1
SY_E2 1-A7
SC_E2 1-A7
TVOUT2 11-A1
AV_LINK 1-A8 12-D5
B_E2 12-C6
L_E2 5-B1
R_E2 5-B1
R_TV2 10-D6
L_TV2 10-E6
A_MUTE
TV_MUTE2 12-B4
MUTE_CANCEL 12-B4
2-B5
2-E4
2-F4
5-D8
9-B1
E3
Y_E1 7-C1
Cb_E1 7-C1
Cr_E1 7-C1
L_CS 1-E6
R_CS 1-E6
Woofer OUT
AUDIO OUT
HDMI_PC_AUDIO
W_APRO
A_MUTE
WOOFER_SW 12-C3
L_MON1 5-D8
R_MON1 5-D8
A_MUTE
2-B5
2-C4
2-E4
5-D8
9-B1
L_HDMI_A_PC 10-C2
R_HDMI_A_PC 10-C2
PJ01
PIN_JACK_10P_SMK

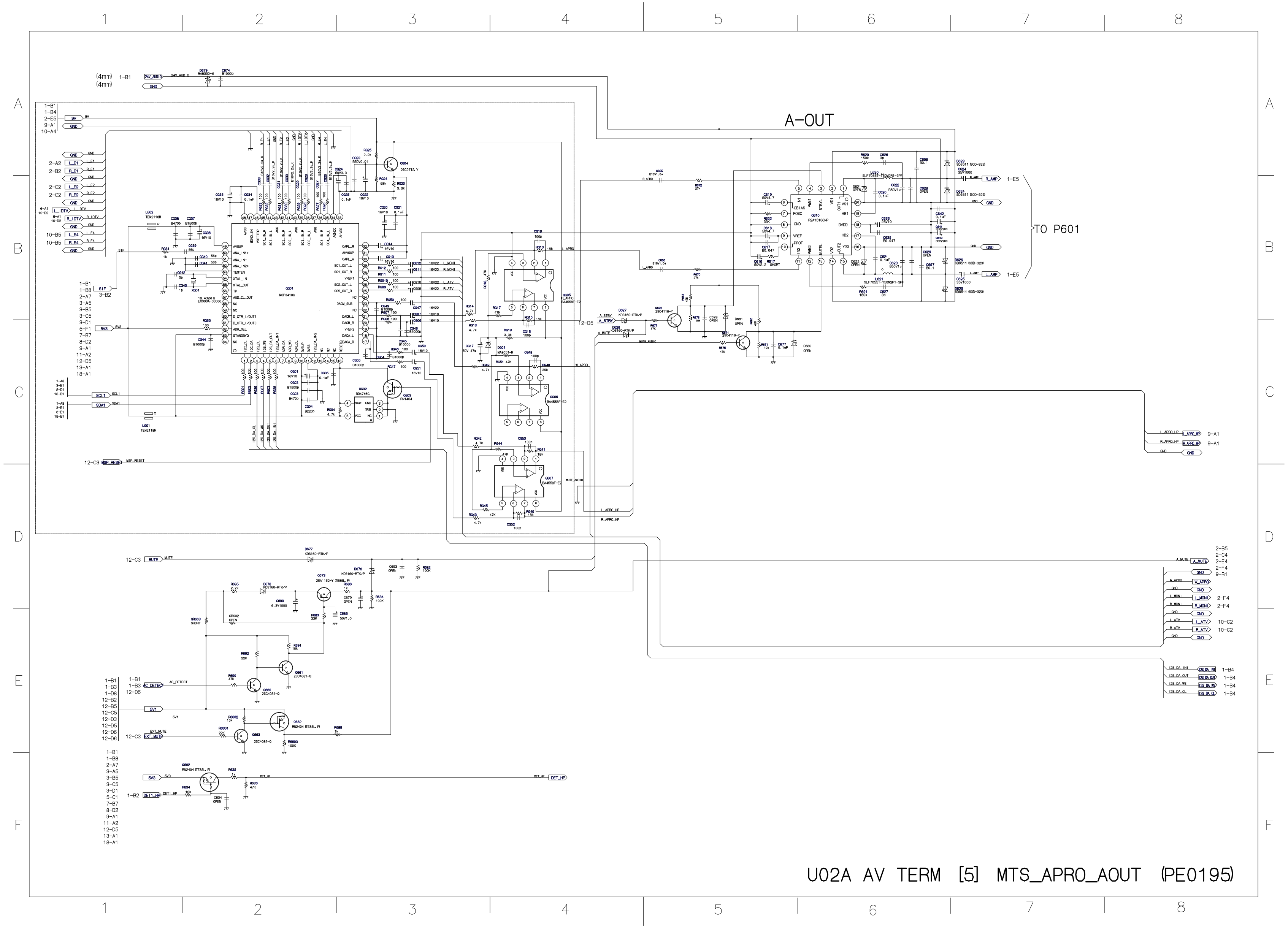
U02A AV TERM [2] AV JACK (PE0195)


Digital : ENGF7304GF 23321550
Analog : ENG37A13GF 23321543
TO DIGITAL TUNER
H001
ENGF7304GF
TIF Type : Horizontal
GR612
GR112
GR613
GR113
tuner_GND
TUNER-GND
To P516A (TUNER GND)
Q102
R112
R115
C119
R111
R113
C108
C101
C110
C112
C111
C113
C114
C115
C191
C116
C103
D101
R102
R101
C107
L191
R167
L104
R114
SCART_OUT_A
GND
To PK05 (TP12)
1-B1
1-B8
2-A7
3-A5
3-B5
3-C5
5-C1
5-F1
7-B7
8-D2
9-A1
5V3
L101
C105
C102
C190
C164
R165
R163
R168
Q162
C161
Q161
R166
R161
C163
R162
R164
R169
R108
L103
SCL1
R107
L102
SDA1
1-A8
5-C1
8-D1
8-E1
18-B1
R103
Q101
2SC4081-Q
R104
R105
32V
C104
S1F OUT
C162
R170
For TV OUT (Scart #19)
TV_OUT
1-A7
1-C8
3-A1
11-A2
13-A1
SYS_SW2
12-B6
C117
C118
SYS_SW1
12-C6
S1F
5-B1
AFT1
1-B5
TEXT SW
CT19
RT07
LT01
CT03
RT09
CT05
GT04
TT_R_OUT
3-D4
RT04
RT05
QT02
CT04
QT03
RT08
CT06
RT03
GT01
QT01
RT06
CT02
CT01
RT01
CT20
RT02
QT10
BA7649AF
RT16
LT02
CT09
RT18
CT11
RT13
RT14
QT05
CT10
QT06
CT12
RT12
GT02
RT17
RT15
CT08
CT07
RT10
QT04
RT11
RT28
QT11
DTC144EUA
TXT_SW2
12-B3
RT25
LT03
CT15
RT27
CT17
RT29
QT12
TXT_SW1
RT22
RT23
QT08
2SC4081-Q
CT16
CT18
RT21
GT03
QT09
2SA1576A
RT26
RT24
CT14
CT13
RT19
QT07
RT20

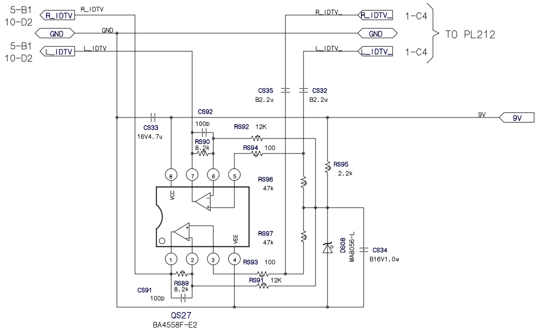
U02A AV TERM [3] TUNER & TEXT SW (PE0195)


PC-DSUB
R
G
B
GND
GND
GND
H
V
PV90
KRD-8622
GR35
SHORT
RR01
1/8W75
RR04
33
GND
DR01
OPEN
RR02
1/8W75
RR05
33
GND
DR02
OPEN
RR03
1/8W75
RR06
33
GND
DR03
OPEN
GND
DR04
OPEN
DR05
OPEN
BLUE_PC
GREEN_PC
RED_PC
V_PC
H_PC
GND
BLUE_PC
GND
GREEN_PC
GND
RED_PC
GND
V_PC
H_PC
GND
1-B5
1-B5
1-C5
1-B5
1-B5
1
2
A
B

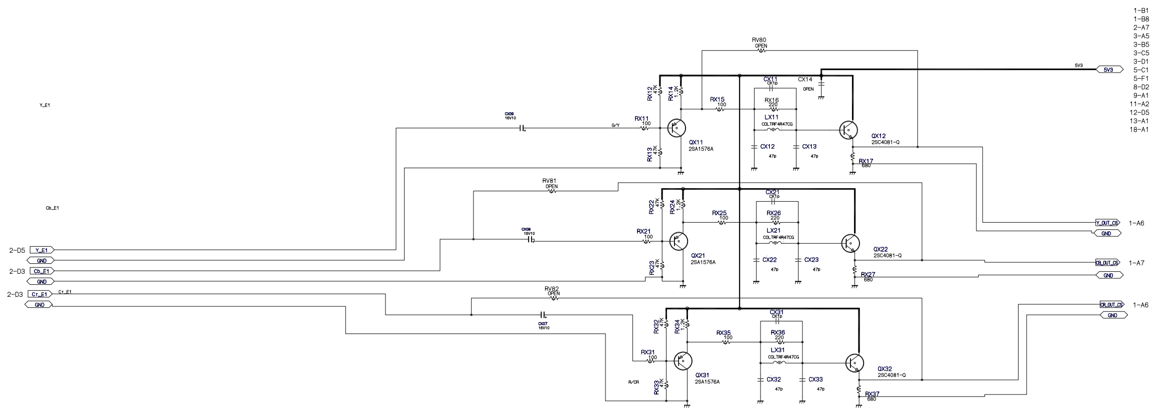
U02A AV TERM [4] PC-INPUT (PE0195)


A-OUT
TO P601
MSP3410G
R2A15106NP
BA4558F-E2
BD4746G
24V_AUDIO
GND
9V
5V3
5V1
SIF
SCL1
SDA1
MSP_RESET
MUTE
AC_DETECT
EXT_MUTE
DET_HP
DET1_HP
A_STBY
A_MUTE
R_AMP
L_AMP
L_APRO_HP
R_APRO_HP
M_APRO
L_MONI
R_MONI
L_ATV
R_ATV
I2S_DA_IN1
I2S_DA_OUT
I2S_DA_WS
I2S_DA_CL
1-E5
12-D5
12-C3
9-A1
10-C2
2-F4
1-B4

U02A AV TERM [5] MTS_APRO_AOUT (PE0195)

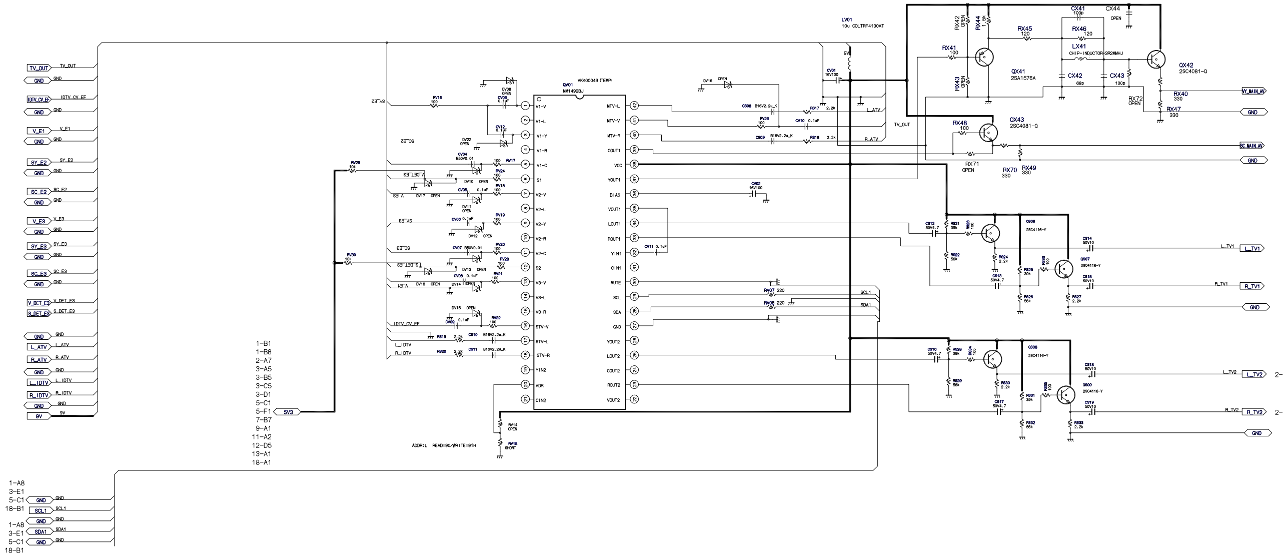

5-B1
10-D2
R_IDTV
R_IDTV
GND
GND
5-B1
10-D2
L_IDTV
L_IDTV
R_IDTV_
R_IDTV_
1-C4
GND
L_IDTV_
L_IDTV_
1-C4
TO PL212
CS35
B2.2u
CS32
B2.2u
9V
9V
CS92
100p
CS33
16V4.7u
RS92 12K
RS90
8.2k
RS94 100
RS95
2.2k
RS96
47k
VCC
RS97
47k
VEE
DS08
MA8056-L
CS34
B16V1.0u
RS93 100
RS91 12K
CS91
100p
RS89
8.2k
QS27
BA4558F-E2

U02A AV TERM [6] EU_DIGITAL_INTERFACE (PE0195)

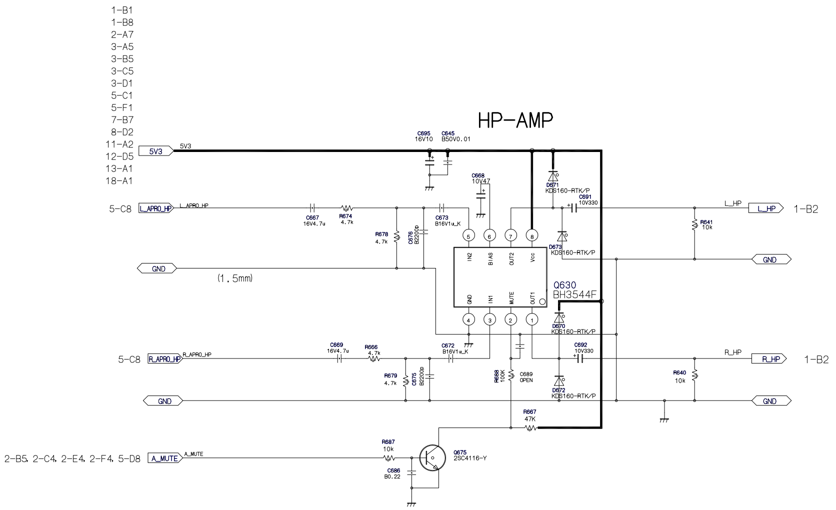

1-B1
1-B8
2-A7
3-A5
3-B5
3-C5
3-D1
5-C1
5-F1
8-D2
9-A1
11-A2
12-D5
13-A1
18-A1
RV80
OPEN
5V3
5V3
CX11
CK1p
CX14
OPEN
RX12
47K
RX14
1.2K
RX15
100
RX16
220
LX11
COLTRF4R47CG
RX11
100
G/Y
CX09
16V10
QX11
2SA1576A
QX12
2SC4081-Q
RX13
47K
CX12
47p
CX13
47p
RX17
680
Y_E1
RV81
OPEN
CX21
CK1p
RX22
47K
RX24
1.2K
RX25
100
RX26
220
LX21
COLTRF4R47CG
RX21
100
CX08
16V10
QX21
2SA1576A
QX22
2SC4081-Q
RX23
47K
CX22
47p
CX23
47p
RX27
680
Y_OUT_CS
GND
1-A6
CB_OUT_CS
1-A7
GND
Cb_E1
2-D5
Y_E1
GND
2-D3
Cb_E1
GND
2-D3
Cr_E1
Cr_E1
GND
RV82
OPEN
CX07
16V10
CX31
CK1p
RX32
47K
RX34
1.2K
RX35
100
RX36
220
LX31
COLTRF4R47CG
RX31
100
R/CR
QX31
2SA1576A
QX32
2SC4081-Q
RX33
47K
CX32
47p
CX33
47p
RX37
680
CR_OUT_CS
GND
1-A6

LPF for Color stream

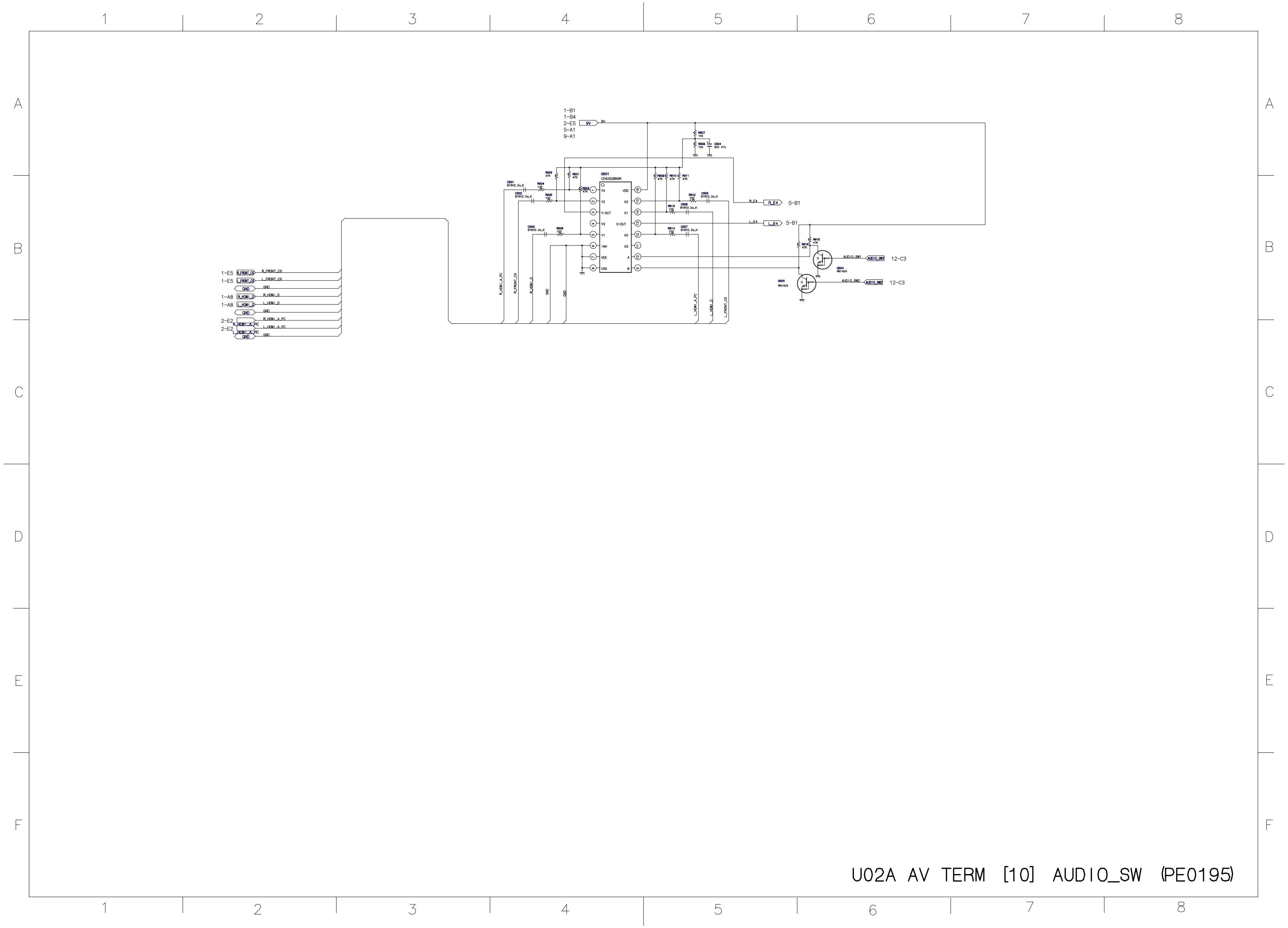
U02A AV TERM [7] LPF for COLOUR STREAM (PE0195)


TV_OUT
GND
IDTV_CV_EF
V_E1
SY_E2
SC_E2
V_E3
SY_E3
SC_E3
V_DET_E3
S_DET_E3
L_ATV
R_ATV
L_IDTV
R_IDTV
9V
1-B1
1-B8
2-A7
3-A5
3-B5
3-C5
3-D1
5-C1
5-F1
5V3
7-B7
9-A1
11-A2
12-D5
13-A1
18-A1
1-A8
3-E1
5-C1
18-B1
SCL1
SDA1
QV01
MM1492BJ
VKK00049 (TEMP)
V1-V
V1-L
V1-Y
V1-R
V1-C
S1
V2-V
V2-L
V2-Y
V2-R
V2-C
S2
V3-V
V3-L
V3-R
STV-V
STV-L
STV-R
YIN2
ADR
CIN2
MTV-L
MTV-V
MTV-R
COUT1
VCC
YOUT1
BIAS
VOUT1
LOUT1
ROUT1
YIN1
CIN1
MUTE
SCL
SDA
GND
YOUT2
LOUT2
COUT2
ROUT2
VOUT2
ADDR:L READ=90/WRITE=91H
RV14 OPEN
RV15 SHORT
DV08 OPEN
CV03 0.1uF
CV12 0.1uF
DV22 OPEN
CV04 B50V0.01
RV17 100
RV24 100
DV10 OPEN
CV05 0.1uF
RV18 100
DV11 OPEN
CV06 0.1uF
RV19 100
DV12 OPEN
CV07 B50V0.01
RV20 100
RV28 100
DV13 OPEN
CV08 0.1uF
RV21 100
DV15 OPEN
RV22 100
CS10 B16V2.2u_K
CS11 B16V2.2u_K
2.2k
CV11 0.1uF
LV01
10u COLTRF4100AT
9V
CV01 16V100
DV16 OPEN
CS08 B16V2.2u_K
RS17 2.2k
RV23 100
CV10 0.1uF
CS09 B16V2.2u_K
RS18 2.2k
CV02 16V100
RV07 220
RV08 220
RX42 OPEN
RX44 1.5k
RX41 100
RX43 OPEN
QX41 2SA1576A
RX45 120
RX46 120
CX41 100p
CX44 OPEN
LX41 CHIP-INDUCTOR-2R2MMHJ
CX42 68p
CX43 100p
QX42 2SC4081-Q
RX72 OPEN
RX40 330
RX47 330
VY_MAIN_AV
QX43 2SC4081-Q
RX48 100
RX71 OPEN
RX70 330
RX49 330
SC_MAIN_AV
CS12 50V4.7
RS21 39k
RS23 100
RS22 56k
QS06 2SC4116-Y
RS24 2.2k
CS14 50V10
L_TV1
CS13 50V4.7
RS25 39k
RS36 100
QS07 2SC4116-Y
CS15 50V10
R_TV1
RS26 56k
RS27 2.2k
CS16 50V4.7
RS28 39k
RS34 100
RS29 56k
QS08 2SC4116-Y
RS30 2.2k
CS18 50V10
L_TV2
2-B5
CS17 50V4.7
RS31 39k
RS35 100
QS09 2SC4116-Y
CS19 50V10
R_TV2
2-B5
RS32 56k
RS33 2.2k

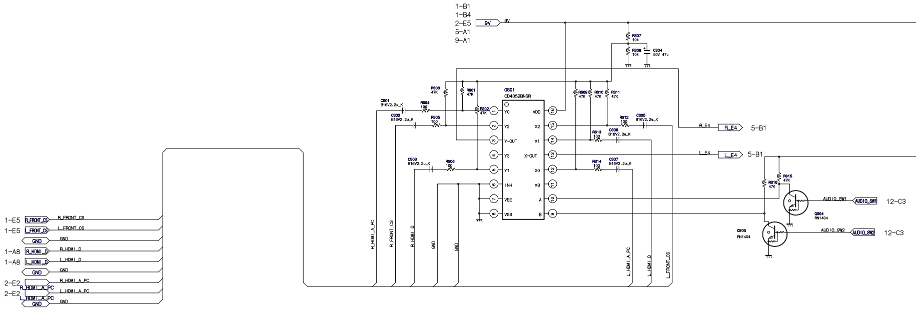
U02A AV TERM [8] AV_SW (PE0195)


1-B1
1-B8
2-A7
3-A5
3-B5
3-C5
3-D1
5-C1
5-F1
7-B7
8-D2
11-A2
12-D5
13-A1
18-A1
5V3
5V3
HP-AMP
C695
16V10
C645
B50V0.01
C668
10V47
D671
KDS160-RTK/P
C691
10V330
L_HP
L_HP
1-B2
R641
10k
5-C8
L_APRO_HP
L_APRO_HP
C667
16V4.7u
R674
4.7k
R678
4.7k
C676
B2200p
C673
B16V1u_K
5
6
7
8
IN2
BIAS
OUT2
Vcc
D673
KDS160-RTK/P
GND
GND
(1.5mm)
Q630
BH3544F
GND
IN1
MUTE
OUT1
4
3
2
1
D670
KDS160-RTK/P
5-C8
R_APRO_HP
R_APRO_HP
C669
16V4.7u
R666
4.7k
C672
B16V1u_K
C692
10V330
R_HP
R_HP
1-B2
R679
4.7k
C675
B2200p
R688
100K
C689
OPEN
D672
KDS160-RTK/P
R640
10k
GND
GND
R667
47K
2-B5, 2-C4, 2-E4, 2-F4, 5-D8
A_MUTE
A_MUTE
R687
10k
Q675
2SC4116-Y
C686
B0.22

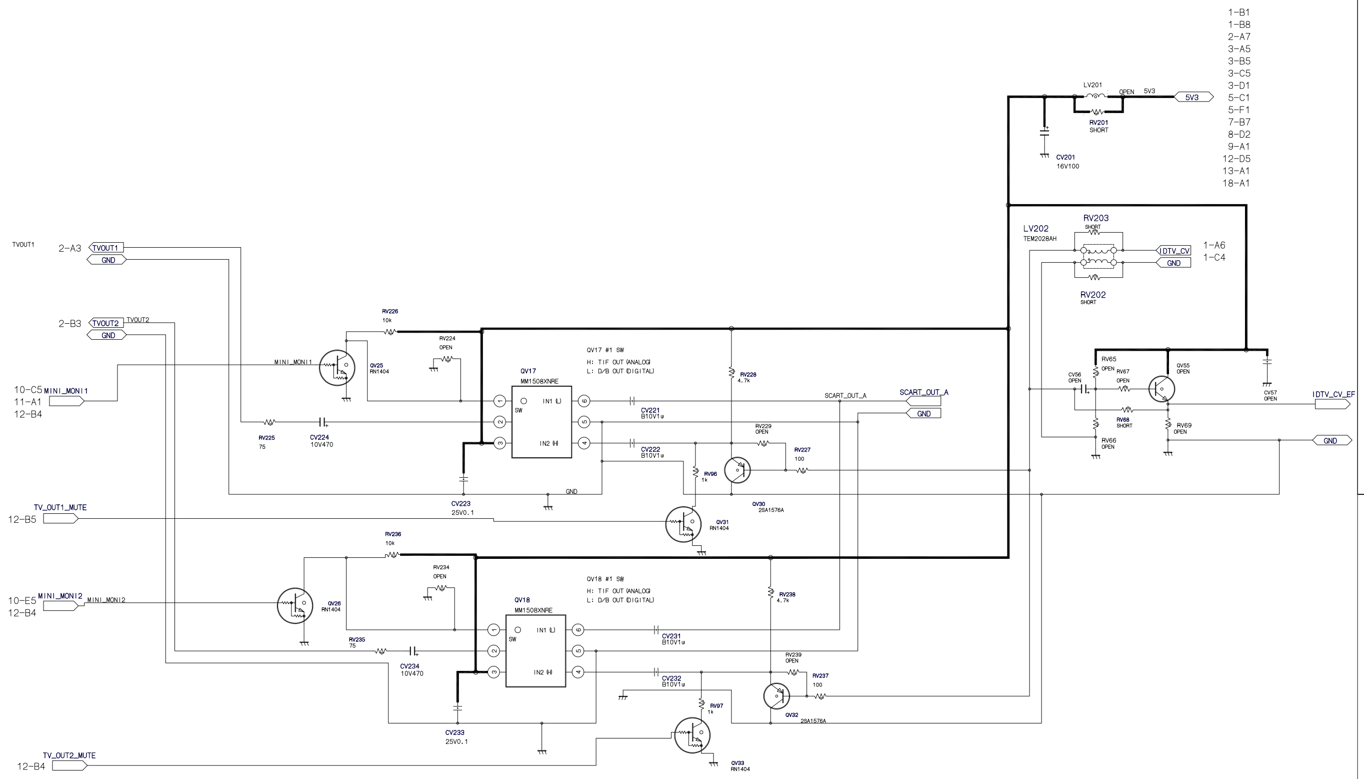
U02A AV TERM [9] HEADPHONE_AMP (PE0195)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
1-E5 R_FRONT_CS
1-E5 L_FRONT_CS
GND
1-A8 R_HDMI_D
1-A8 L_HDMI_D
GND
2-E2 R_HDMI_A_PC
2-E2 L_HDMI_A_PC
GND
R_FRONT_CS
L_FRONT_CS
GND
R_HDMI_D
L_HDMI_D
GND
R_HDMI_A_PC
L_HDMI_A_PC
GND
1-B1
1-B4
2-E5
5-A1
9-A1
9V
9V
R907 10k
R908 10k
C904 50V 47u
R903 47K
R901 47K
R902 47K
C901 B16V2.2u_K
R904 100
C902 B16V2.2u_K
R905 100
C903 B16V2.2u_K
R906 100
Q901
CD4052BNSR
Y0
Y2
Y-OUT
Y3
Y1
INH
VEE
VSS
VDD
X2
X1
X-OUT
X0
X3
A
B
1
2
3
4
5
6
7
8
16
15
14
13
12
11
10
9
R909 47K
R910 47K
R911 47K
R912 100
C905 B16V2.2u_K
R913 100
C906 B16V2.2u_K
R914 100
C907 B16V2.2u_K
R_HDMI_A_PC
R_FRONT_CS
R_HDMI_D
GND
GND
L_HDMI_A_PC
L_HDMI_D
L_FRONT_CS
R_E4
R_E4 5-B1
L_E4
L_E4 5-B1
R915 47K
R916 47K
AUDIO_SW1
AUDIO_SW1 12-C3
Q904 RN1404
Q905 RN1404
AUDIO_SW2
AUDIO_SW2 12-C3
1
2
3
4
5
6
7
8

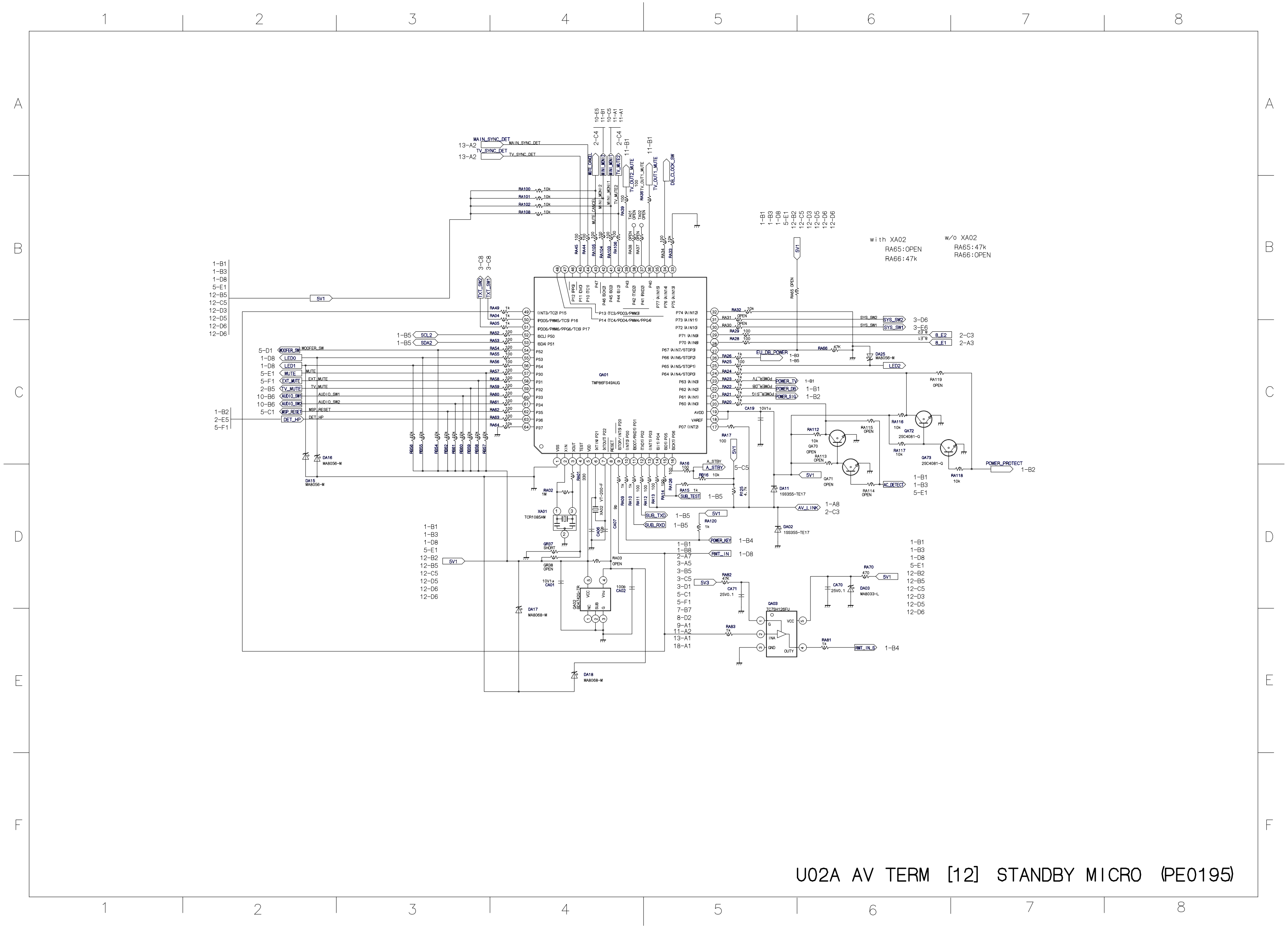
U02A AV TERM [10] AUDIO_SW (PE0195)


1-B1
1-B4
2-E5
5-A1
9-A1
9V
9V
RS07
10k
RS08
10k
CS04
50V 47u
QS01
CD4052BNSR
RS01
47K
RS02
47K
RS03
47K
RS04
100
RS05
100
RS06
100
CS01
B16V2.2u_K
CS02
B16V2.2u_K
CS03
B16V2.2u_K
Y0
Y2
Y-OUT
Y3
Y1
INH
VEE
VSS
VDD
X2
X1
X-OUT
X0
X3
A
B
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
RS09
47K
RS10
47K
RS11
47K
RS12
100
CS05
B16V2.2u_K
RS13
100
CS06
B16V2.2u_K
RS14
100
CS07
B16V2.2u_K
R_E4
R_E4
5-B1
L_E4
L_E4
5-B1
RS15
47K
RS16
47K
AUDIO_SW1
AUDIO_SW1
12-C3
QS04
RN1404
QS05
RN1404
AUDIO_SW2
AUDIO_SW2
12-C3
1-E5
R_FRONT_CS
R_FRONT_CS
1-E5
L_FRONT_CS
L_FRONT_CS
GND
GND
1-A8
R_HDMI_D
R_HDMI_D
1-A8
L_HDMI_D
L_HDMI_D
GND
GND
2-E2
R_HDMI_A_PC
R_HDMI_A_PC
2-E2
L_HDMI_A_PC
L_HDMI_A_PC
GND
GND
R_HDMI_A_PC
R_FRONT_CS
R_HDMI_D
GND
GND
L_HDMI_A_PC
L_HDMI_D
L_FRONT_CS

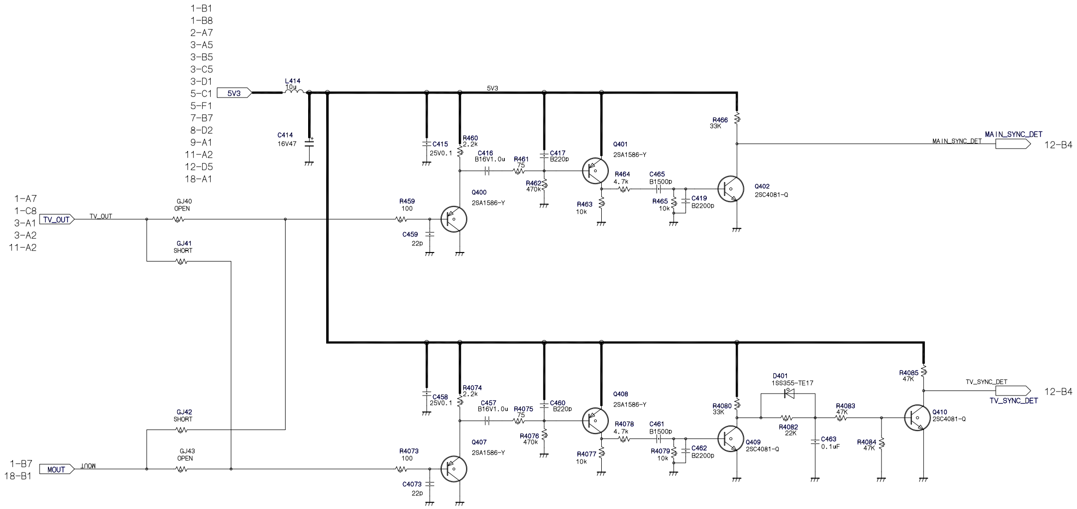
U02A AV TERM [10] AUDIO_SW (PE0195)


1
2
A
B
1-B1
1-B8
2-A7
3-A5
3-B5
3-C5
3-D1
5-C1
5-F1
7-B7
8-D2
9-A1
12-D5
13-A1
18-A1
LV201
OPEN
5V3
5V3
RV201
SHORT
CV201
16V100
LV202
TEM2028AH
RV203
SHORT
IDTV_CV
GND
1-A6
1-C4
RV202
SHORT
TVOUT1
2-A3
TVOUT1
GND
2-B3
TVOUT2
TVOUT2
GND
RV226
10k
RV224
OPEN
MINI_MONI1
QV25
RN1404
10-C5
11-A1
12-B4
MINI_MONI1
QV17 #1 SW
H: TIF OUT (ANALOG)
L: D/B OUT (DIGITAL)
QV17
MM1508XNRE
IN1 (L)
SW
IN2 (H)
RV228
4.7k
SCART_OUT_A
SCART_OUT_A
GND
CV221
B10V1u
CV222
B10V1u
RV229
OPEN
RV227
100
RV96
1k
QV30
2SA1576A
RV225
75
CV224
10V470
CV223
25V0.1
GND
TV_OUT1_MUTE
12-B5
QV31
RN1404
RV65
OPEN
CV56
OPEN
RV67
OPEN
QV55
OPEN
CV57
OPEN
IDTV_CV_EF
RV68
SHORT
RV69
OPEN
RV66
OPEN
GND
RV236
10k
RV234
OPEN
QV18 #1 SW
H: TIF OUT (ANALOG)
L: D/B OUT (DIGITAL)
QV18
MM1508XNRE
IN1 (L)
SW
IN2 (H)
RV238
4.7k
10-E5
12-B4
MINI_MONI2
MINI_MONI2
QV26
RN1404
RV235
75
CV234
10V470
CV231
B10V1u
CV232
B10V1u
RV239
OPEN
RV237
100
RV97
1k
QV32
2SA1576A
CV233
25V0.1
TV_OUT2_MUTE
12-B4
QV33
RN1404

U02A AV TERM [11] TV-OUT (PE0195)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
MAIN_SYNC_DET
TV_SYNC_DET
13-A2
13-A2
5V1
QA01
TMP86FS49AUG
SCL2
SDA2
1-B5
WOOFER_SW
LED0
LED1
MUTE
EXT_MUTE
TV_MUTE
AUDIO_SW1
AUDIO_SW2
MSP_RESET
DET_HP
TXT_SW2
TXT_SW1
SYS_SW2
SYS_SW1
3-D6
3-E6
B_E2
B_E1
2-C3
2-A3
EU_DB_POWER
LED2
POWER_TV
POWER_DB
POWER_SIG
QA72
2SC4081-Q
QA73
2SC4081-Q
QA70
OPEN
QA71
OPEN
AC_DETECT
POWER_PROTECT
1-B2
A_STBY
SUB_TEST
SUB_TXD
SUB_RXD
POWER_KEY
RMT_IN
AV_LINK
1-A8
2-C3
DA11
1SS355-TE17
DA02
1SS355-TE17
XA01
DA15
MA8056-M
DA16
MA8056-M
DA17
MA8068-M
DA18
MA8068-M
DA25
MA8056-M
QA03
CA70
DA03
MA8033-L
RMT_IN_S
1-B4
with XA02
RA65:OPEN
RA66:47k
w/o XA02
RA65:47k
RA66:OPEN
DB_CLOCK_SW
TV_OUT1_MUTE
TV_OUT2_MUTE
MUTE_CANCEL
MINI_MON1
MINI_MON2

U02A AV TERM [12] STANDBY MICRO (PE0195)

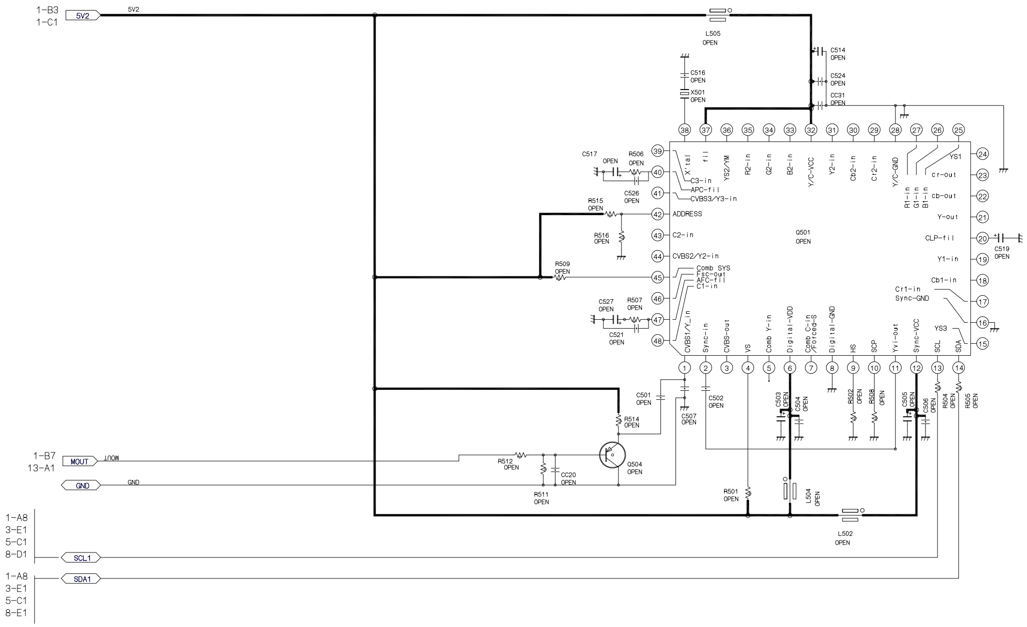

1-B1
1-B8
2-A7
3-A5
3-B5
3-C5
3-D1
5-C1
5-F1
7-B7
8-D2
9-A1
11-A2
12-D5
18-A1
5V3
L414
10u
C414
16V47
5V3
C415
25V0.1
R460
2.2k
C416
B16V1.0u
R461
75
C417
B220p
R462
470k
Q400
2SA1586-Y
Q401
2SA1586-Y
R463
10k
R464
4.7k
C465
B1500p
R465
10k
C419
B2200p
Q402
2SC4081-Q
R466
33K
MAIN_SYNC_DET
MAIN_SYNC_DET
12-B4
1-A7
1-C8
3-A1
3-A2
11-A2
TV_OUT
TV_OUT
GJ40
OPEN
GJ41
SHORT
R459
100
C459
22p
GJ42
SHORT
GJ43
OPEN
1-B7
18-B1
MOUT
MOUT
R4073
100
C4073
22p
Q407
2SA1586-Y
C458
25V0.1
R4074
2.2k
C457
B16V1.0u
R4075
75
C460
B220p
R4076
470k
Q408
2SA1586-Y
R4077
10k
R4078
4.7k
C461
B1500p
R4079
10k
C462
B2200p
Q409
2SC4081-Q
R4080
33K
D401
1SS355-TE17
R4082
22K
C463
0.1uF
R4083
47K
R4084
47K
R4085
47K
Q410
2SC4081-Q
TV_SYNC_DET
TV_SYNC_DET
12-B4

A A

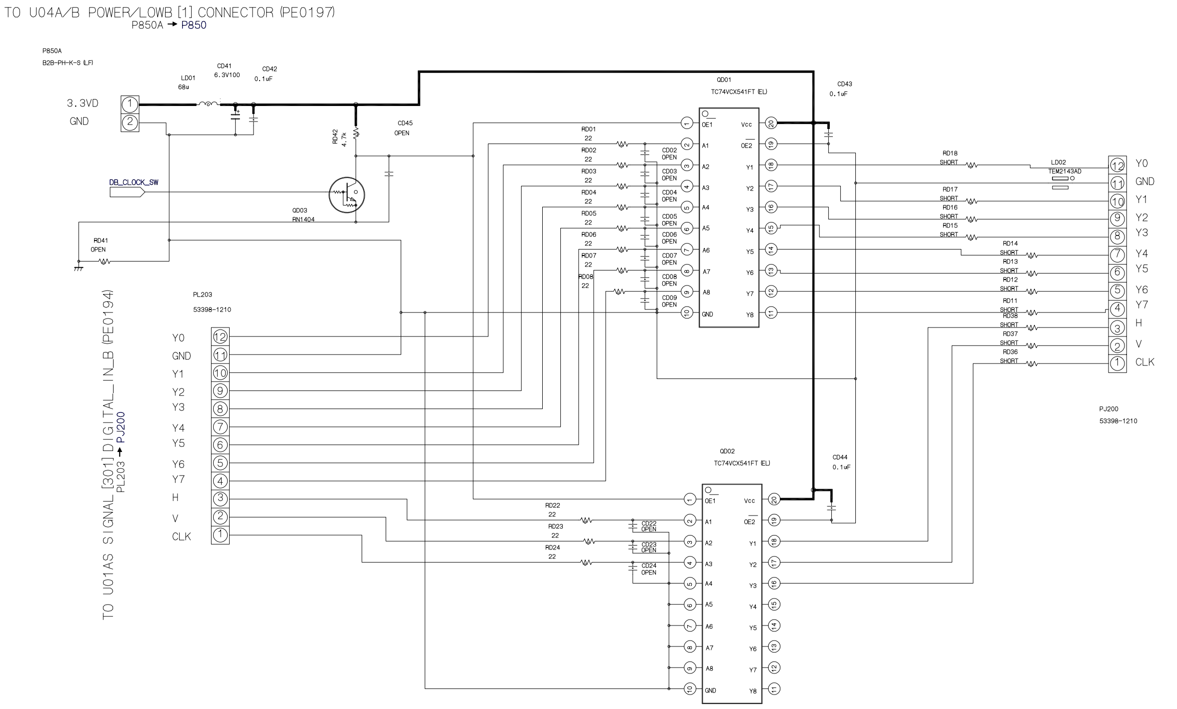
B B

U02A AV TERM [13] SYNC_DET (PE0195)

DRAWINGNAME

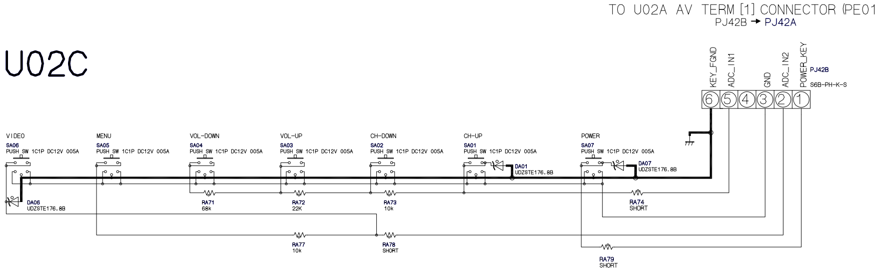

1-B3
1-C1
5V2
5V2
L505
OPEN
C514
OPEN
C524
OPEN
CC31
OPEN
C516
OPEN
X501
OPEN
C517
OPEN
R506
OPEN
C526
OPEN
R515
OPEN
R516
OPEN
R509
OPEN
C527
OPEN
R507
OPEN
C521
OPEN
Q501
OPEN
X'tal
fil
YS2/YM
R2-in
G2-in
B2-in
Y/C-VCC
Y2-in
Cb2-in
Cr2-in
Y/C-GND
R1-in
G1-in
B1-in
YS1
cr-out
cb-out
Y-out
CLP-fil
Y1-in
Cb1-in
Cr1-in
Sync-GND
YS3
C3-in
APC-fil
CVBS3/Y3-in
ADDRESS
C2-in
CVBS2/Y2-in
Comb SYS
Fsc-out
AFC-fil
C1-in
CVBS1/Y_in
Sync-in
CVBS-out
VS
Comb Y-in
Digital-VDD
Comb C-in /Forced-S
Digital-GND
HS
SCP
Yvi-out
Sync-VCC
SCL
SDA
C519
OPEN
C501
OPEN
C507
OPEN
C502
OPEN
C503
OPEN
C504
OPEN
R502
OPEN
R508
OPEN
C505
OPEN
C506
OPEN
R504
OPEN
R505
OPEN
R514
OPEN
Q504
OPEN
R512
OPEN
R511
OPEN
CC20
OPEN
R501
OPEN
L504
OPEN
L502
OPEN
1-B7
13-A1
MOUT
MOUT
GND
GND
1-A8
3-E1
5-C1
8-D1
SCL1
SDA1
1-A8
3-E1
5-C1
8-E1

U02A AV TERM [18] Color Decorder (PE0195)

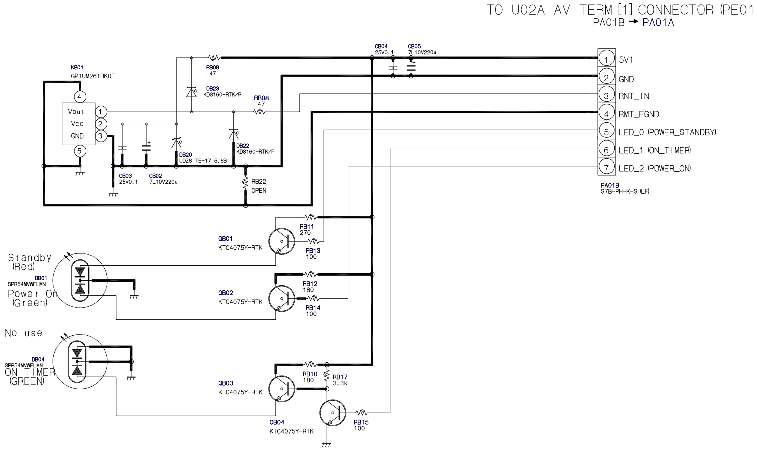

TO U04A/B POWER/LOWB [1] CONNECTOR (PE0197)
P850A → P850
P850A
B2B-PH-K-S (LF)
3.3VD
GND
LD01
68u
CD41
6.3V100
CD42
0.1uF
RD42
4.7k
CD45
OPEN
DB_CLOCK_SW
QD03
RN1404
RD41
OPEN
QD01
TC74VCX541FT (EL)
CD43
0.1uF
RD01 22
RD02 22
RD03 22
RD04 22
RD05 22
RD06 22
RD07 22
RD08 22
CD02 OPEN
CD03 OPEN
CD04 OPEN
CD05 OPEN
CD06 OPEN
CD07 OPEN
CD08 OPEN
CD09 OPEN
OE1
A1
A2
A3
A4
A5
A6
A7
A8
GND
Vcc
OE2
Y1
Y2
Y3
Y4
Y5
Y6
Y7
Y8
RD18 SHORT
LD02
TEM2143AD
RD17 SHORT
RD16 SHORT
RD15 SHORT
RD14 SHORT
RD13 SHORT
RD12 SHORT
RD11 SHORT
RD38 SHORT
RD37 SHORT
RD36 SHORT
Y0
GND
Y1
Y2
Y3
Y4
Y5
Y6
Y7
H
V
CLK
PJ200
53398-1210
TO U01AS SIGNAL [301] DIGITAL_IN_B (PE0194)
PL203 → PJ200
PL203
53398-1210
Y0
GND
Y1
Y2
Y3
Y4
Y5
Y6
Y7
H
V
CLK
QD02
TC74VCX541FT (EL)
CD44
0.1uF
RD22 22
RD23 22
RD24 22
CD22 OPEN
CD23 OPEN
CD24 OPEN

U02A AV TERM [19] PL203 SWITCH (PE0195)

U02C

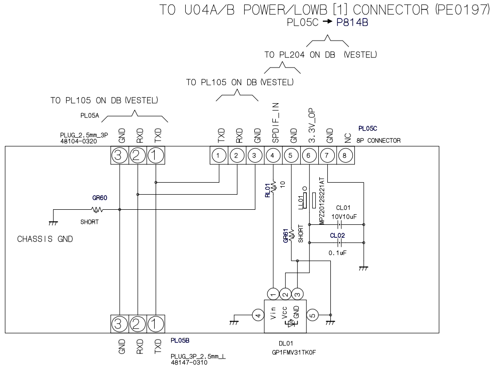

TO U02A AV TERM [1] CONNECTOR (PE0195)
PJ42B → PJ42A
KEY_FGND
ADC_IN1
GND
ADC_IN2
POWER_KEY
PJ42B
S6B-PH-K-S
6
5
4
3
2
1
VIDEO
SA06
PUSH SW 1C1P DC12V 005A
MENU
SA05
PUSH SW 1C1P DC12V 005A
VOL-DOWN
SA04
PUSH SW 1C1P DC12V 005A
VOL-UP
SA03
PUSH SW 1C1P DC12V 005A
CH-DOWN
SA02
PUSH SW 1C1P DC12V 005A
CH-UP
SA01
PUSH SW 1C1P DC12V 005A
DA01
UDZSTE176.8B
POWER
SA07
PUSH SW 1C1P DC12V 005A
DA07
UDZSTE176.8B
DA06
UDZSTE176.8B
RA71
68k
RA72
22K
RA73
10k
RA74
SHORT
RA77
10k
RA78
SHORT
RA79
SHORT

U02B

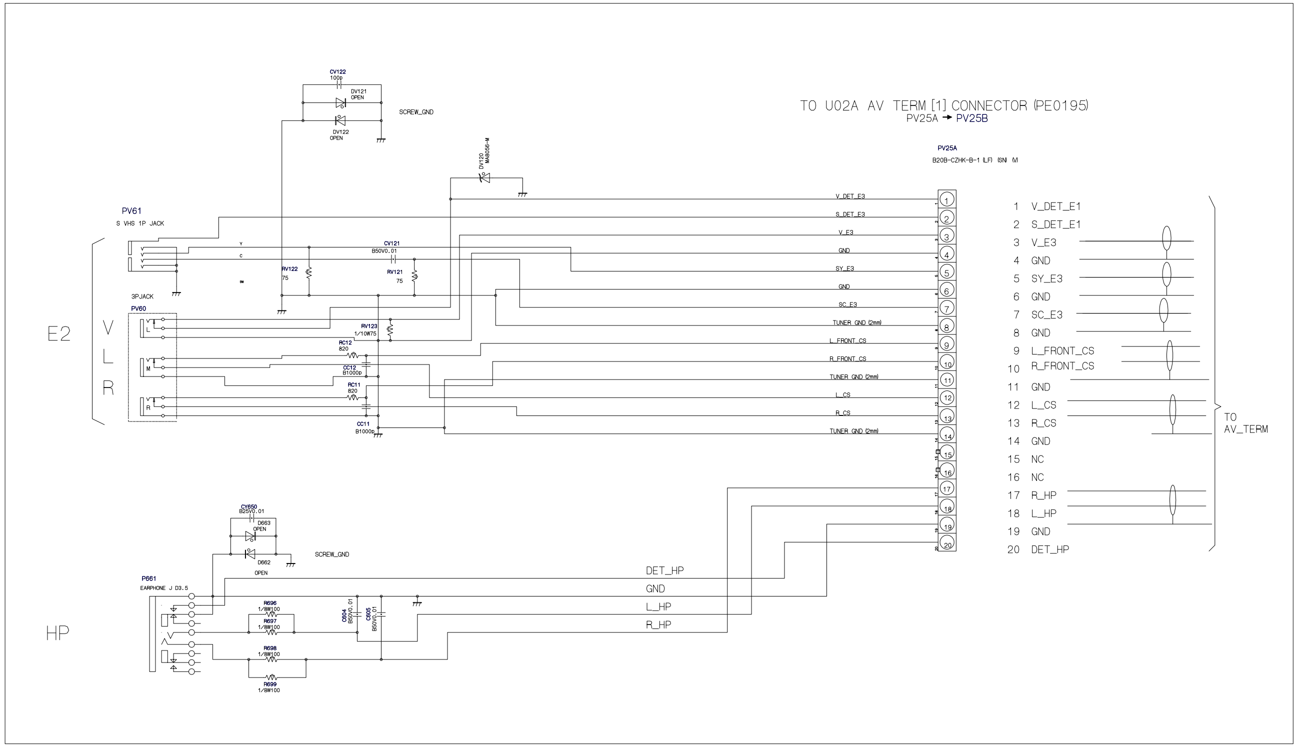

TO U02A AV TERM [1] CONNECTOR (PE0195)
PA01B → PA01A
KB01
GP1UM261RK0F
4
Vout
Vcc
GND
1
2
3
5
RB09
47
DB23
KDS160-RTK/P
RB08
47
CB04
25V0.1
CB05
7L10V220u
CB03
25V0.1
CB02
7L10V220u
DB20
UDZS TE-17 5.6B
DB22
KDS160-RTK/P
RB22
OPEN
1 5V1
2 GND
3 RNT_IN
4 RMT_FGND
5 LED_0 (POWER_STANDBY)
6 LED_1 (ON_TIMER)
7 LED_2 (POWER_ON)
PA01B
S7B-PH-K-S (LF)
RB11
270
QB01
KTC4075Y-RTK
RB13
100
Standby
(Red)
DB01
SPR54MVWFLMN
Power On
(Green)
RB12
180
QB02
KTC4075Y-RTK
RB14
100
No use
DB04
SPR54MVWFLMN
ON TIMER
(GREEN)
RB10
180
RB17
3.3k
QB03
KTC4075Y-RTK
QB04
KTC4075Y-RTK
RB15
100

U02B/C LED/KEY [15] LED & KEY (PE0195)

for WLT68 and WLG68 SERIES


TO U04A/B POWER/LOWB [1] CONNECTOR (PE0197)
PL05C → P814B
TO PL204 ON DB (VESTEL)
TO PL105 ON DB (VESTEL)
TO PL105 ON DB (VESTEL)
PL05A
PLUG_2.5mm_3P
48104-0320
GND
RXD
TXD
3
2
1
TXD
RXD
GND
SPDIF_IN
GND
3.3V_OP
GND
NC
1
2
3
4
5
6
7
8
PL05C
8P CONNECTOR
GR60
SHORT
CHASSIS GND
RL01
10
LL01
MPZ2012S221AT
CL01
10V10uF
GR61
SHORT
CL02
0.1uF
Vin
Vcc
GND
1
2
3
4
5
3
2
1
GND
RXD
TXD
PL05B
PLUG_3P_2.5mm_L
48147-0310
DL01
GP1FMV31TK0F

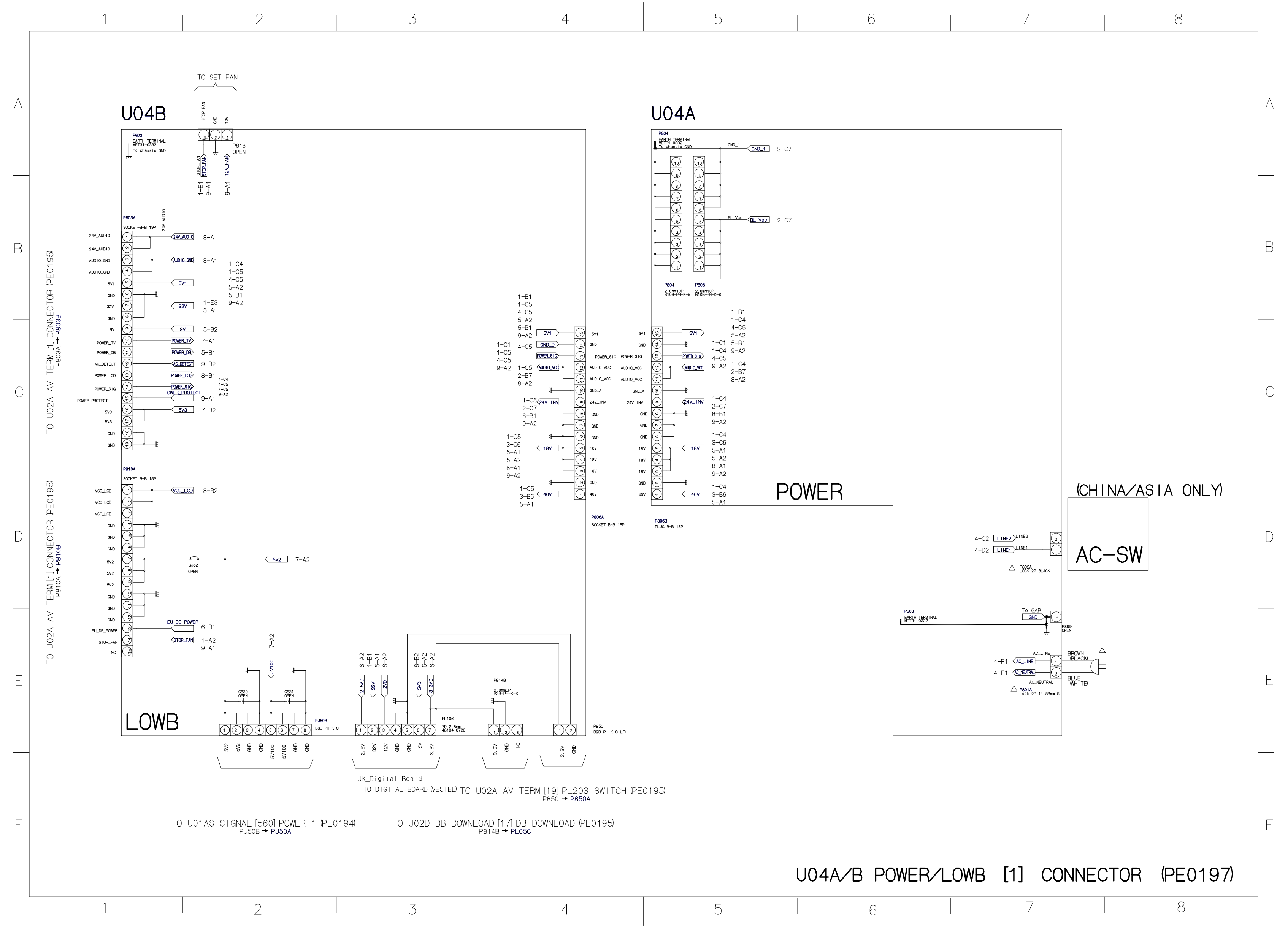
U02D DB DOWNLOAD [17] DB DOWNLOAD (PE0195)


TO U02A AV TERM [1] CONNECTOR (PE0195)
PV25A → PV25B
PV25A
B20B-CZHK-B-1 (LF) (SN) (M)
CV122
100p
DV121
OPEN
DV122
OPEN
SCREW_GND
DV120
MA8056-M
PV61
S VHS 1P JACK
Y
C
SW
RV122
75
CV121
B50V0.01
RV121
75
3PJACK
PV60
E2
V
L
R
L
M
R
RV123
1/10W75
RC12
820
CC12
B1000p
RC11
820
CC11
B1000p
V_DET_E3
S_DET_E3
V_E3
GND
SY_E3
GND
SC_E3
TUNER GND (2mm)
L_FRONT_CS
R_FRONT_CS
TUNER GND (2mm)
L_CS
R_CS
TUNER GND (2mm)
1 V_DET_E1
2 S_DET_E1
3 V_E3
4 GND
5 SY_E3
6 GND
7 SC_E3
8 GND
9 L_FRONT_CS
10 R_FRONT_CS
11 GND
12 L_CS
13 R_CS
14 GND
15 NC
16 NC
17 R_HP
18 L_HP
19 GND
20 DET_HP
TO
AV_TERM
CY650
B25V0.01
D663
OPEN
D662
OPEN
SCREW_GND
P661
EARPHONE J D3.5
HP
R696
1/8W100
R697
1/8W100
R698
1/8W100
R699
1/8W100
C604
B50V0.01
C605
B50V0.01
DET_HP
GND
L_HP
R_HP

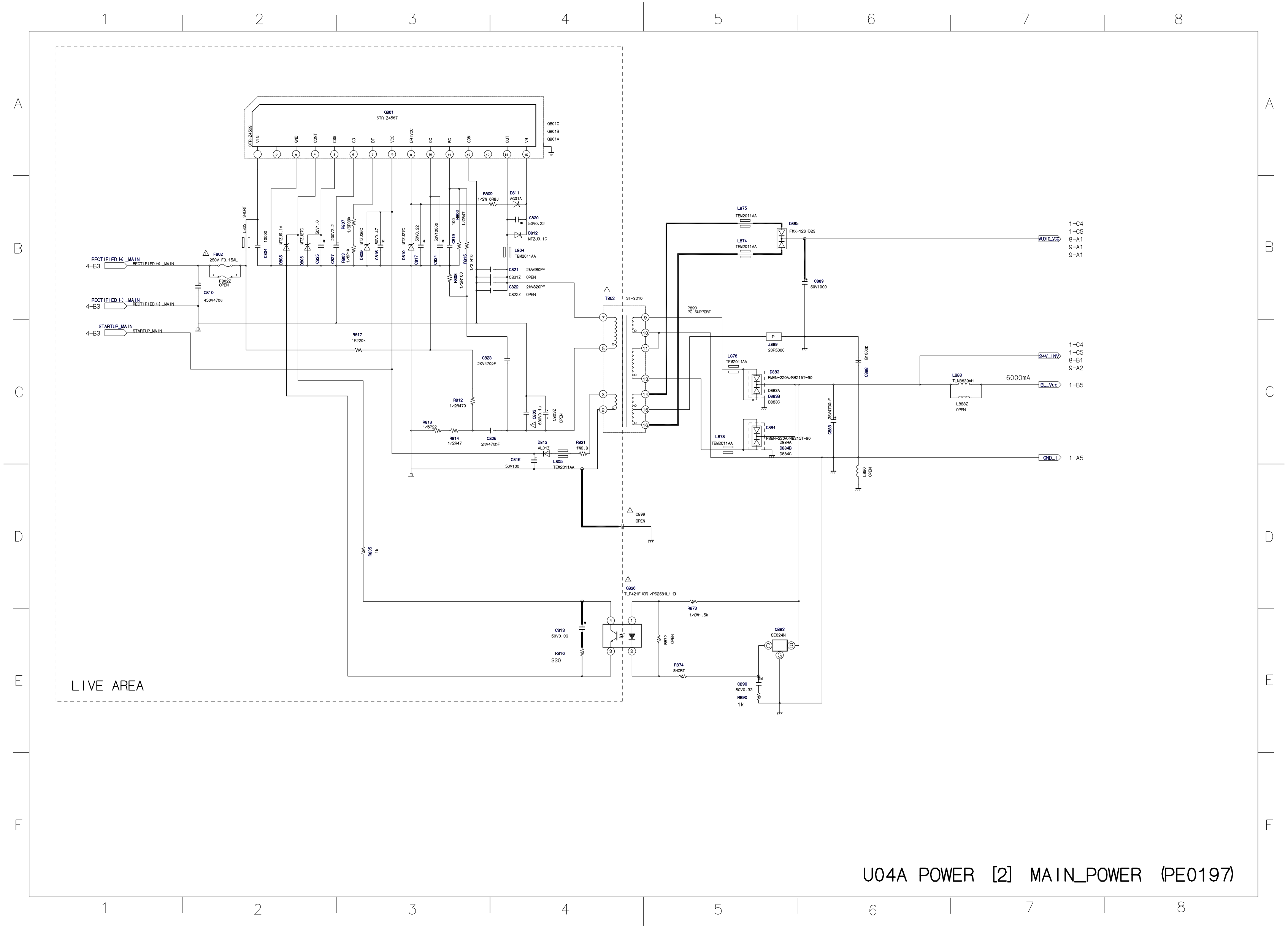
A

B

U03A FRONT HDMI [1] FRONT-AV (PE0196)

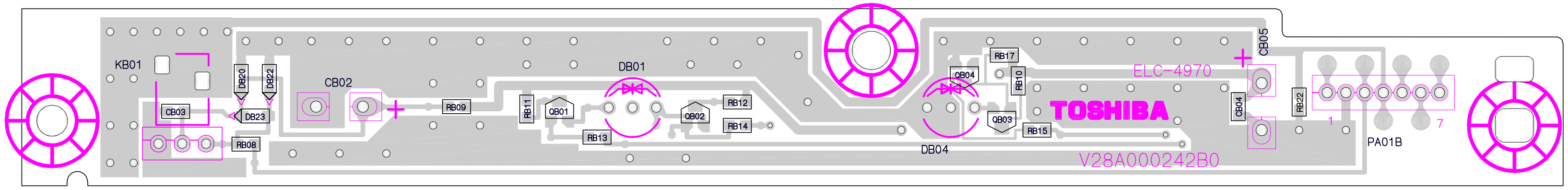

U04B
U04A
TO SET FAN
P818
OPEN
STOP_FAN
12V_FAN
P803A
SOCKET B-B 19P
24V_AUDIO
AUDIO_GND
5V1
32V
9V
POWER_TV
POWER_DB
AC_DETECT
POWER_LCD
POWER_SIG
POWER_PROTECT
5V3
GND
P810A
SOCKET B-B 15P
VCC_LCD
5V2
EU_DB_POWER
STOP_FAN
NC
GJ52
OPEN
LOWB
C830
OPEN
C831
OPEN
5V100
PJ50B
B8B-PH-K-S
2.5VD
32V
12VD
5VD
3.3VD
PL106
P814B
P850
B2B-PH-K-S (LF)
UK_Digital Board
TO DIGITAL BOARD (VESTEL)
PG04
EARTH TERMINAL
MET31-0332
To chassis GND
GND_1
BL_Vcc
P804
P805
P806A
SOCKET B-B 15P
P806B
PLUG B-B 15P
5V1
GND_D
POWER_SIG
AUDIO_VCC
GND_A
24V_INV
18V
40V
POWER
(CHINA/ASIA ONLY)
AC-SW
LINE2
LINE1
P802A
LOCK 2P BLACK
PG03
EARTH TERMINAL
MET31-0332
To GAP
P899
OPEN
AC_LINE
AC_NEUTRAL
BROWN (BLACK)
BLUE (WHITE)
P801A
TO U02A AV TERM [1] CONNECTOR (PE0195)
P803A → P803B
TO U02A AV TERM [1] CONNECTOR (PE0195)
P810A → P810B
TO U02A AV TERM [19] PL203 SWITCH (PE0195)
P850 → P850A
TO U01AS SIGNAL [560] POWER 1 (PE0194)
PJ50B → PJ50A
TO U02D DB DOWNLOAD [17] DB DOWNLOAD (PE0195)
P814B → PL05C

U04A/B POWER/LOWB [1] CONNECTOR (PE0197)

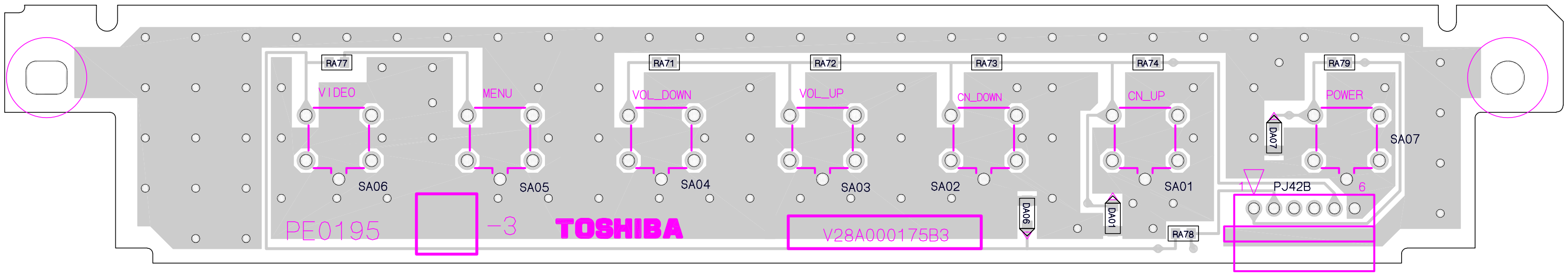

LIVE AREA
Q801
STR-Z4567
STR-Z4569
VIN
GND
CONT
CSS
CD
DT
VCC
DRIVCC
OC
RC
COM
OUT
VB
Q801C
Q801B
Q801A
RECTIFIED (+) _MAIN
4-B3
RECTIFIED (-) _MAIN
4-B3
STARTUP_MAIN
4-B3
F802
250V F3.15AL
F802Z
OPEN
C810
450V470u
L803
SHORT
C804
10000
D805
MTZJ9.1A
D806
MTZJ27C
C825
50V1.0
C827
200V2.2
R807
1/6P39k
R803
1/6P1k
D809
MTZJ36C
C815
50V0.47
D810
MTZJ27C
C817
50V0.22
C824
50V1000p
C819
100
R806
1/2R47
R815
1/2 R10
R808
1/2R100
R809
1/2W 6R8J
D811
AG01A
C820
50V0.22
D812
MTZJ9.1C
L804
TEM2011AA
C821
2kV680PF
C821Z
OPEN
C822
2kV820PF
C822Z
OPEN
R817
1P220k
C823
2KV470pF
R812
1/2R470
R813
1/6P22
R814
1/2R47
C826
2KV470pF
C803
630V0.1u
C803Z
OPEN
D813
AL01Z
R821
1W6.8
C816
50V100
L805
TEM2011AA
R805
1k
T862
ST-3210
C899
OPEN
Q826
TLP421F (GR) /PS2581L1 (D)
C813
50V0.33
R816
330
R872
OPEN
R873
1/8W1.5k
R874
SHORT
Q883
SE024N
C890
50V0.33
R890
1k
L875
TEM2011AA
L874
TEM2011AA
D885
FMX-12S (023
C889
50V1000
P890
PC SUPPORT
Z889
20P5000
L876
TEM2011AA
D883
FMEN-220A/RB215T-90
D883A
D883B
D883C
D884
FMEN-220A/RB215T-90
D884A
D884B
D884C
L878
TEM2011AA
C883
35V4700uF
C888
B1000p
L890
OPEN
L883
TLN3639AH
L883Z
OPEN
6000mA
AUDIO_VCC
1-C4
1-C5
8-A1
9-A1
9-A1
24V_INV
1-C4
1-C5
8-B1
9-A2
BL_Vcc
1-B5
GND_1
1-A5
1
2
3
4
5
6
7
8
A
B
C
D
E
F

U04A POWER [2] MAIN_POWER (PE0197)

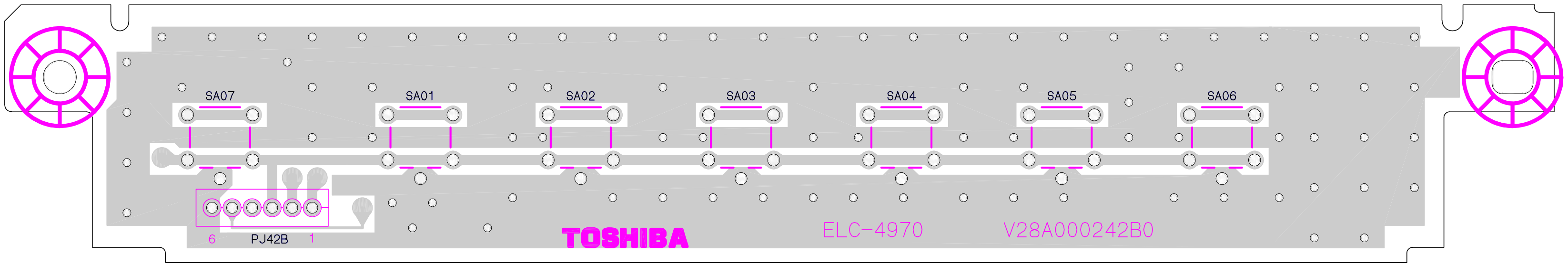
U02B LED [Bottom] (PE0195)


KB01
CB03
DB20
DB22
DB23
RB08
CB02
RB09
RB11
QB01
RB13
DB01
QB02
RB12
RB14
DB04
QB04
RB17
RB10
QB03
RB15
ELC-4970
TOSHIBA
V28A000242B0
CB05
CB04
RB22
1
7
PA01B

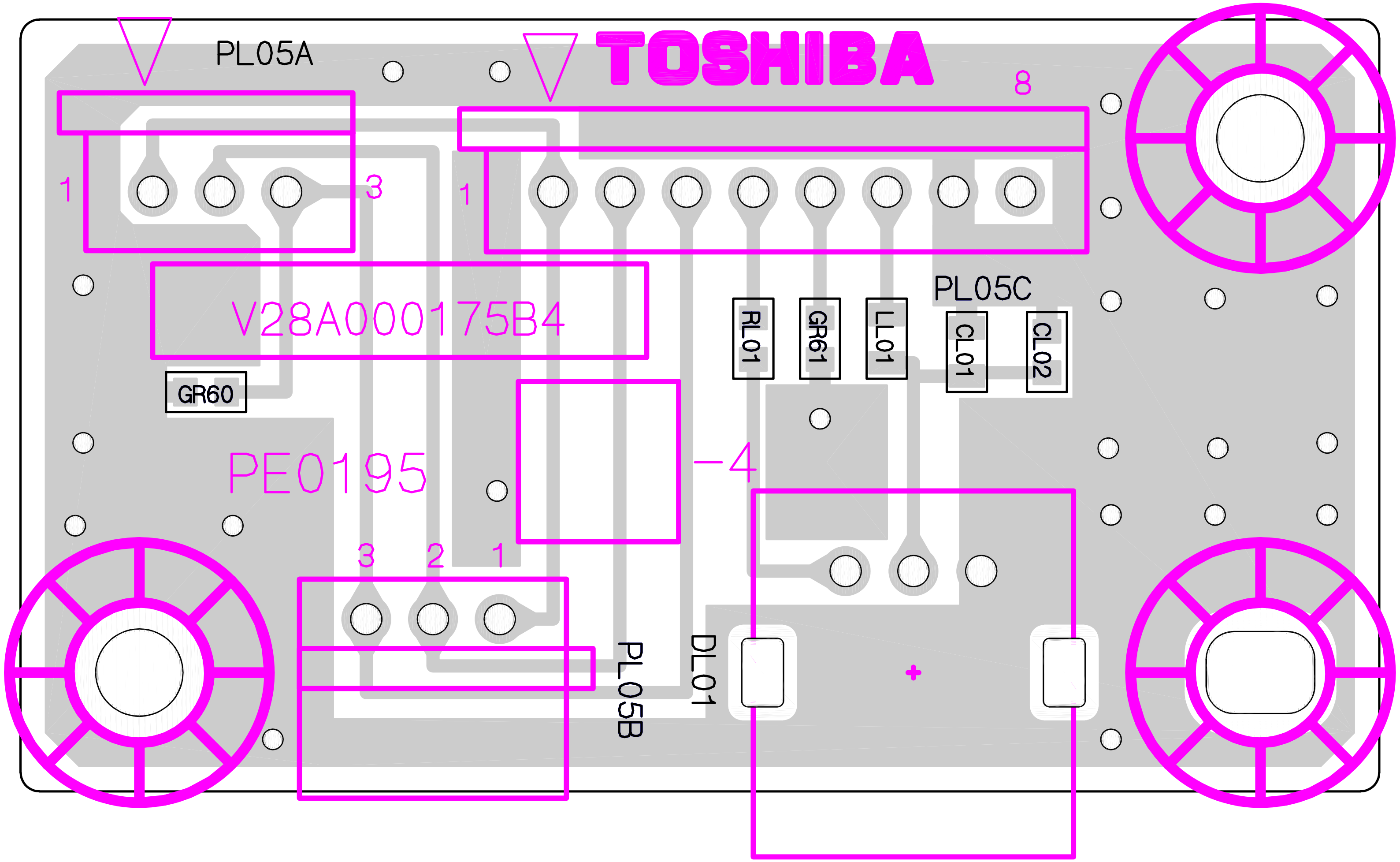
U02C KEY [Top] (PE0195)


RA77
VIDEO
MENU
RA71
VOL_DOWN
RA72
VOL_UP
RA73
CN_DOWN
RA74
CN_UP
RA79
POWER
DA07
SA07
SA06
SA05
SA04
SA03
SA02
SA01
1
PJ42B
6
DA06
DA01
RA78
PE0195
-3
TOSHIBA
V28A000175B3

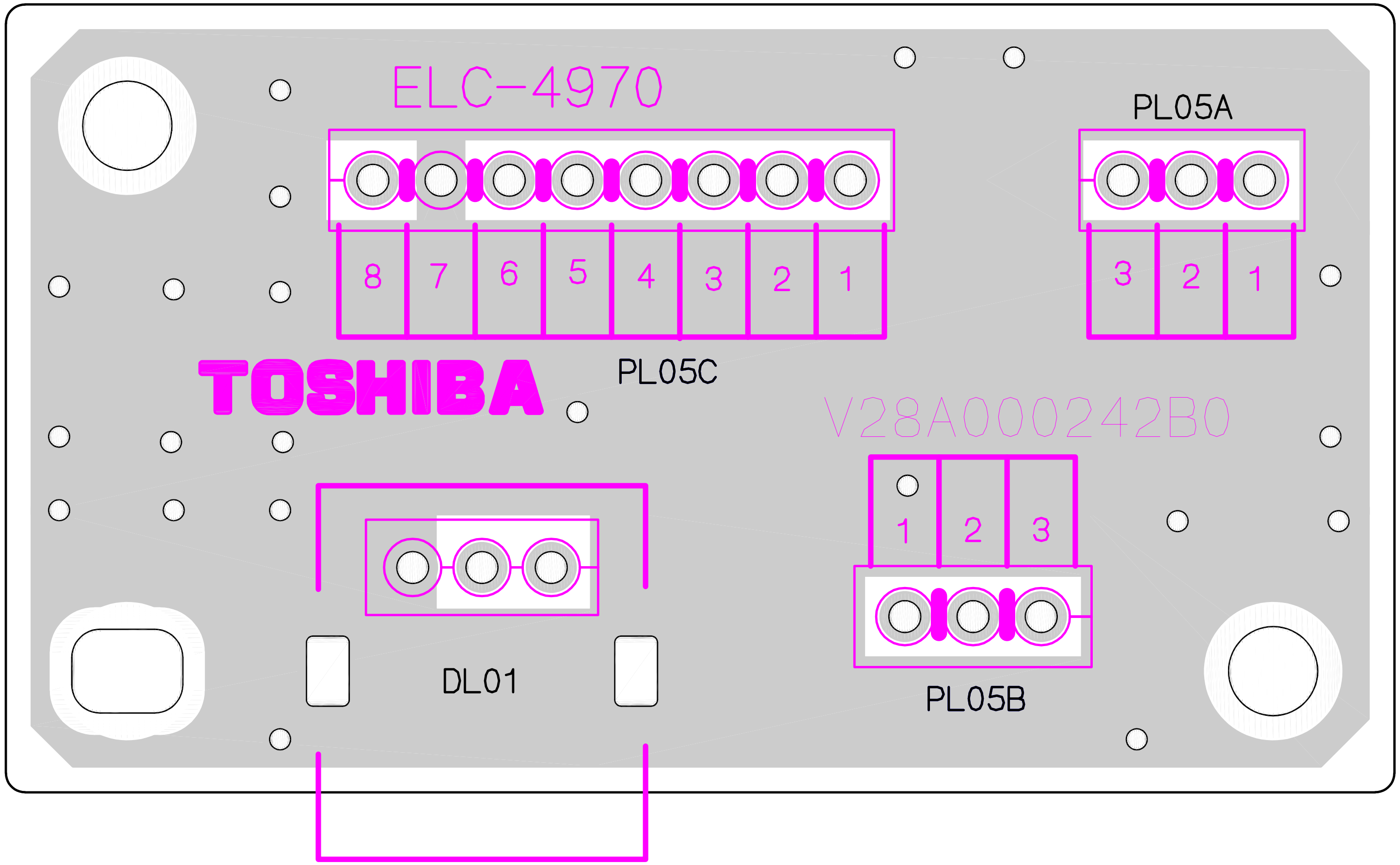
U02C KEY [Bottom] (PE0195)


SA07
SA01
SA02
SA03
SA04
SA05
SA06
6
PJ42B
1
TOSHIBA
ELC-4970
V28A000242B0

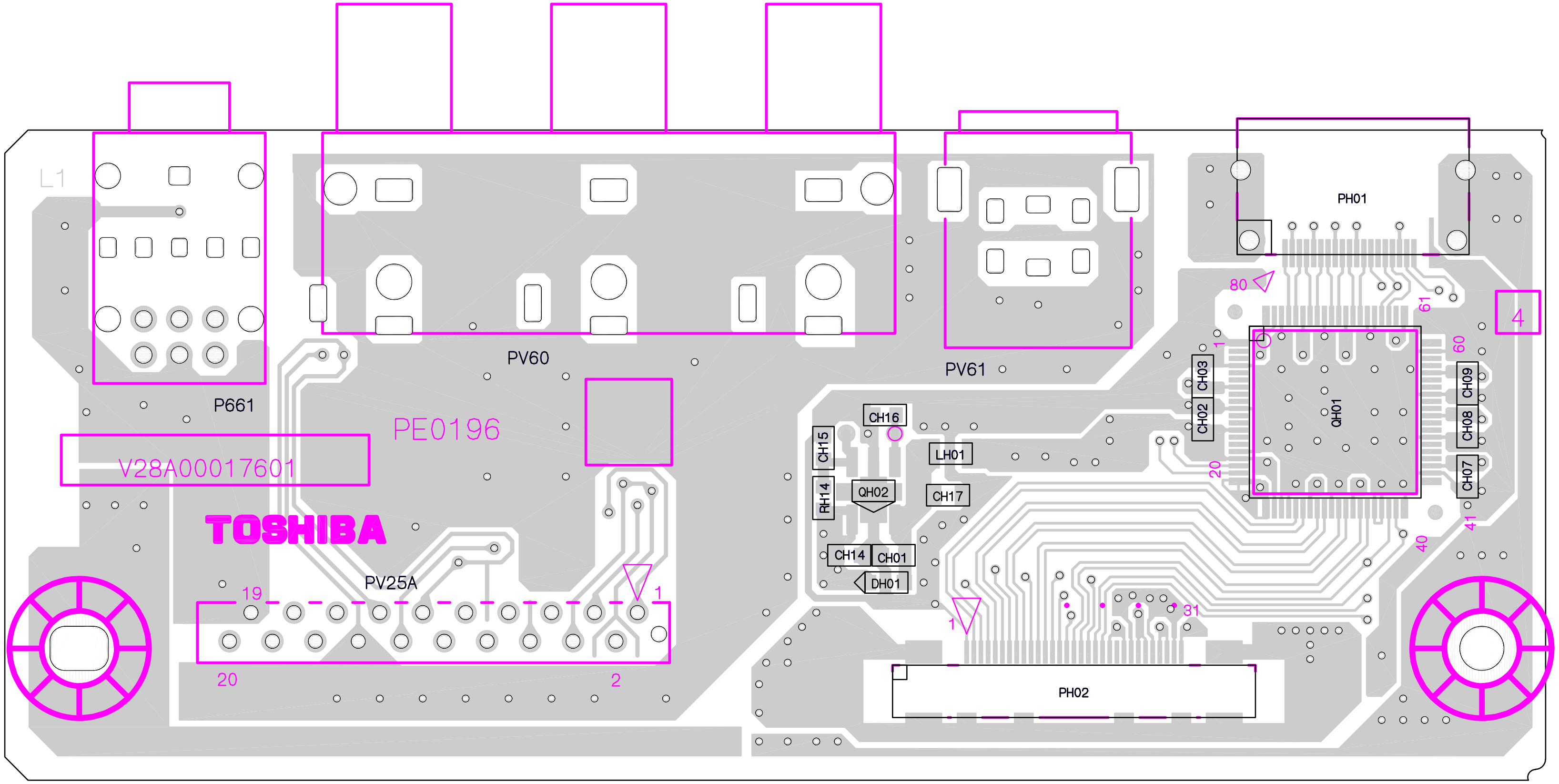
U02D DB DOWNLOAD [Top] (PE0195)


PL05A
1
3
TOSHIBA
8
1
PL05C
V28A000175B4
RL01
GR61
LL01
CL01
CL02
GR60
PE0195
-4
3
2
1
PL05B
DL01

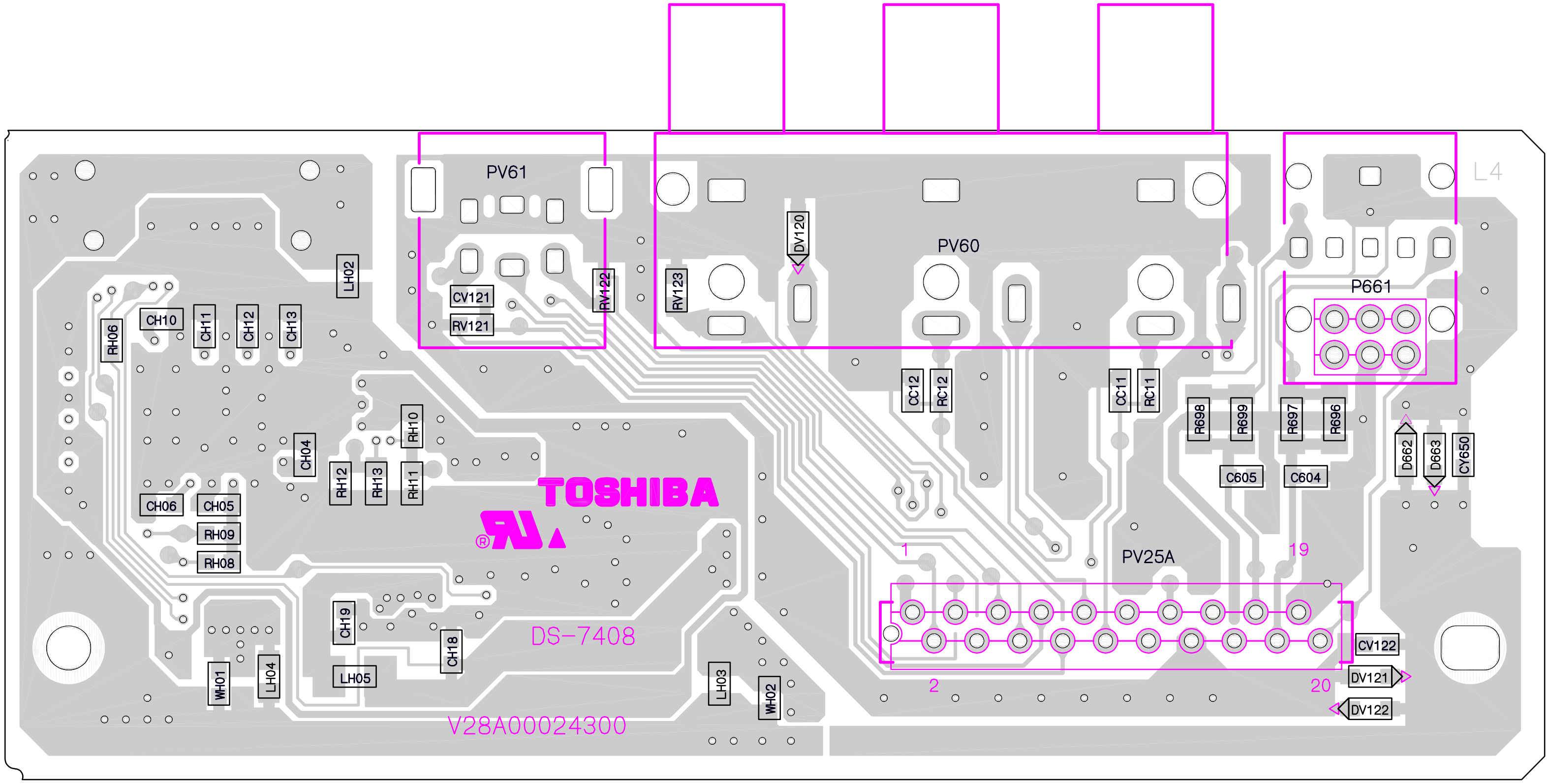
U02D DB DOWNLOAD [Bottom] (PE0195)


ELC-4970
PL05A
8
7
6
5
4
3
2
1
3
2
1
TOSHIBA
PL05C
V28A000242B0
1
2
3
DL01
PL05B

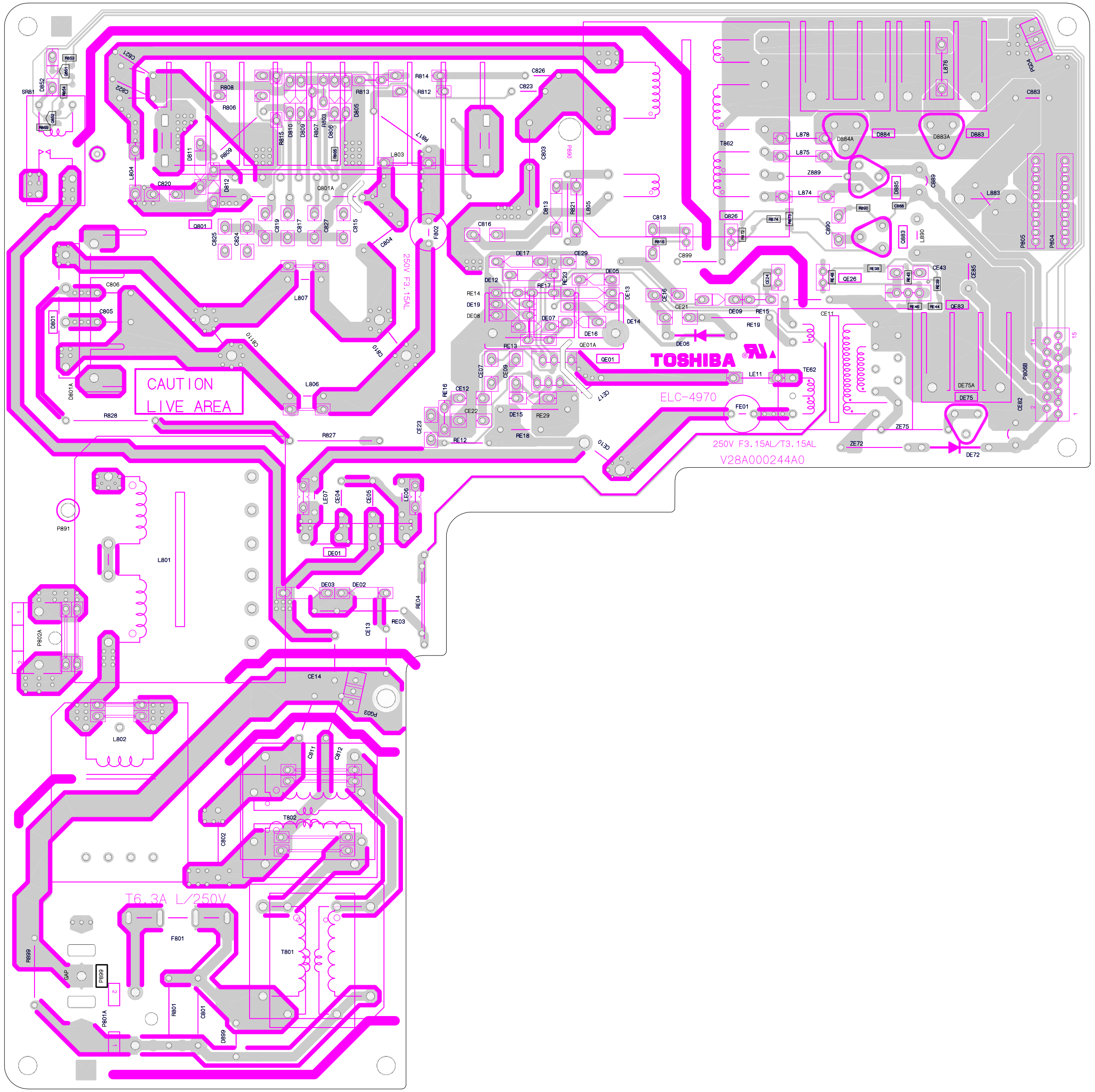
U03A FRONT HDMI [Top] (PE0196)


L1
P661
PV60
PV61
PH01
PE0196
V28A00017601
TOSHIBA
PV25A
19
1
20
2
CH16
CH15
LH01
RH14
QH02
CH17
CH14
CH01
DH01
CH03
CH02
QH01
CH09
CH08
CH07
80
61
60
41
40
20
1
4
31
PH02

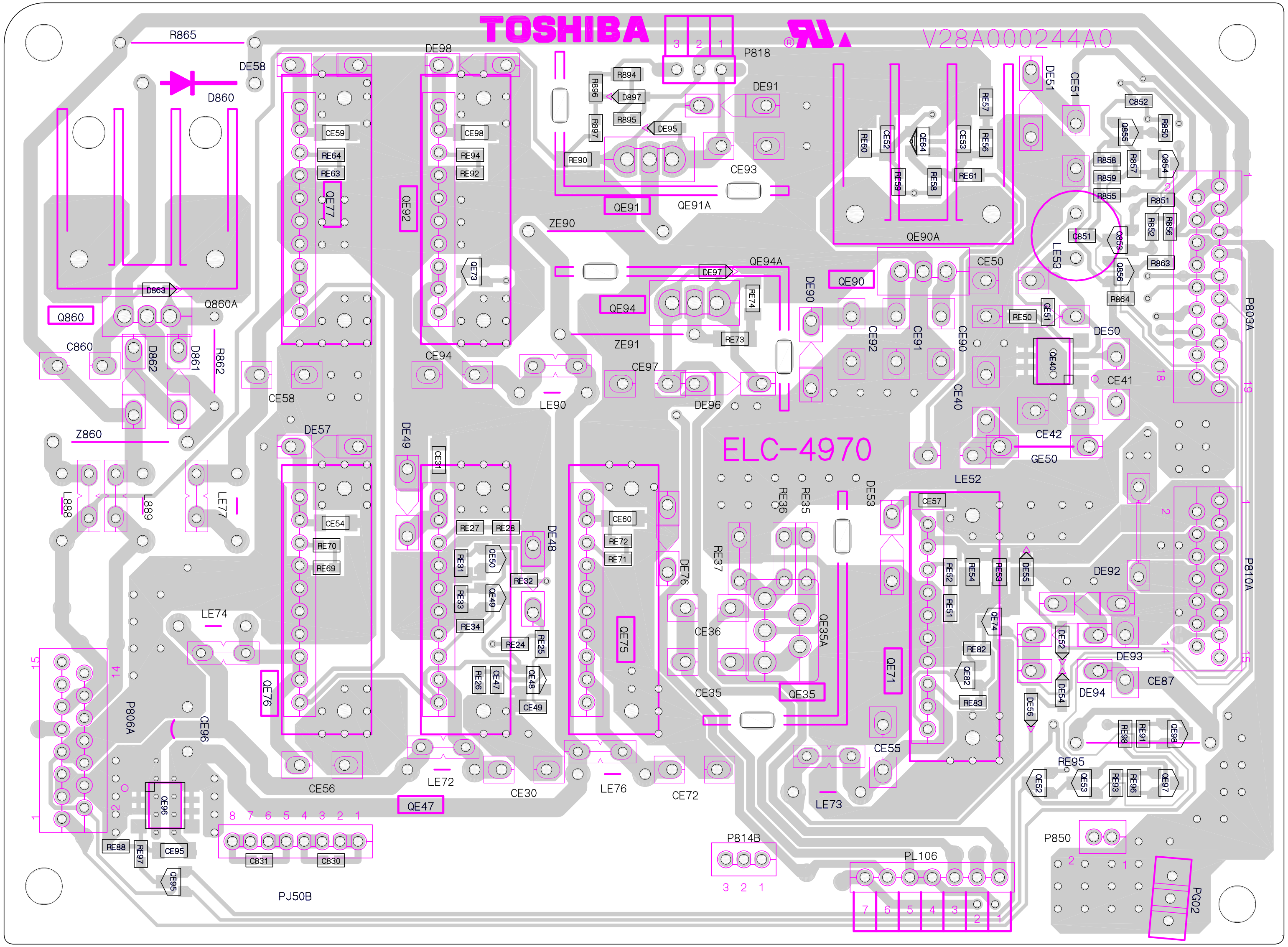
U03A FRONT HDMI [Bottom] (PE0196)


PV61
CV121
RV121
RV122
LH02
RV123
DV120
PV60
L4
P661
RH06
CH10
CH11
CH12
CH13
CC12
RC12
CC11
RC11
R698
R699
R697
R696
CH04
RH10
C605
C604
D662
D663
CY650
RH12
RH13
RH11
TOSHIBA
CH06
CH05
RH09
RH08
1
PV25A
19
CH19
DS-7408
CH18
CV122
LH05
WH01
LH04
LH03
WH02
2
20
DV121
DV122
V28A00024300

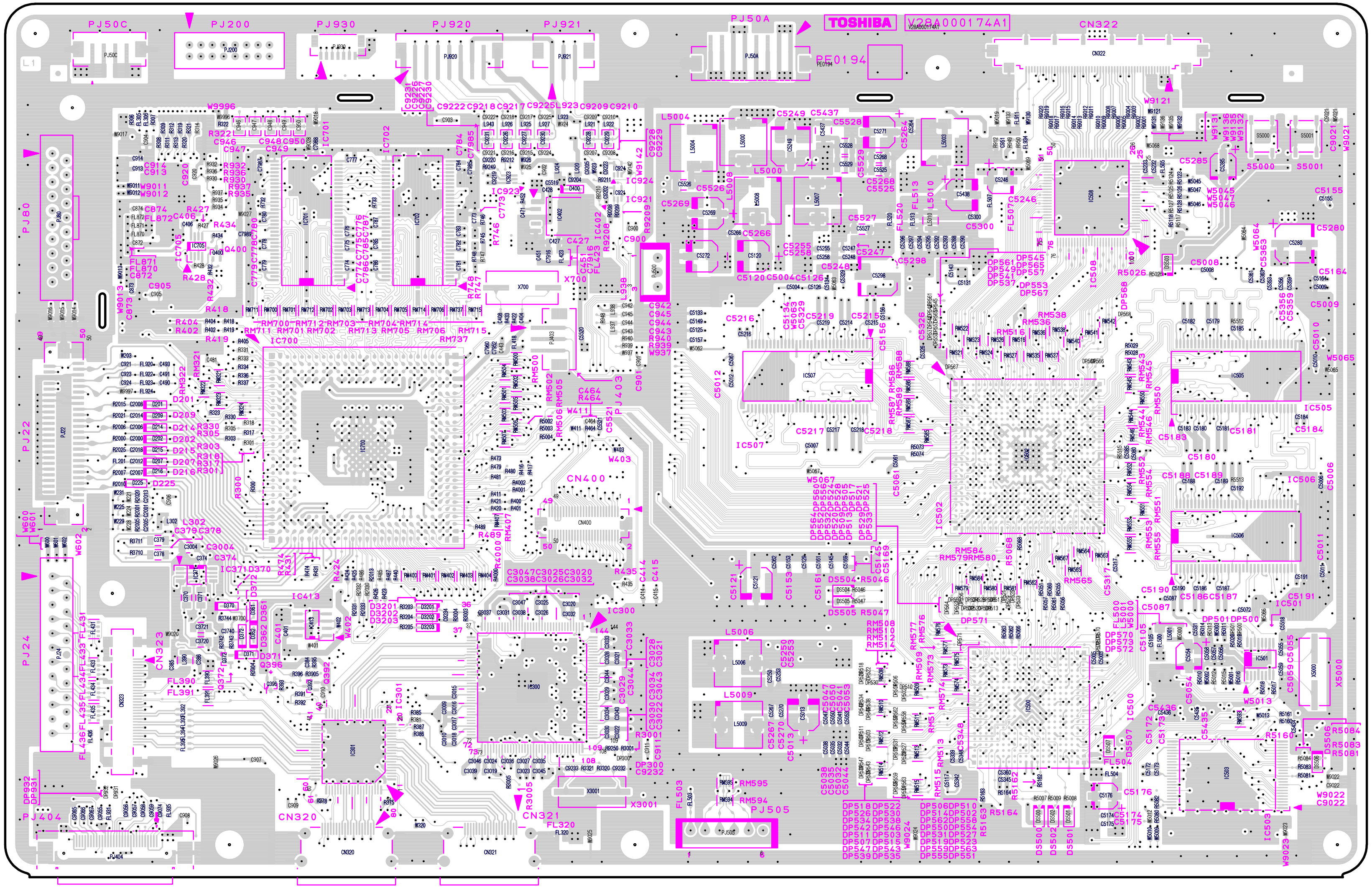
U04A POWER [Bottom] (PE0197)


CAUTION
LIVE AREA
TOSHIBA
ELC-4970
250V F3.15AL/T3.15AL
V28A000244A0
250V F3.15AL
T6.3A L/250V
L801
L802
T801
T802
F801
FE01
CE14
P891
L806
L807

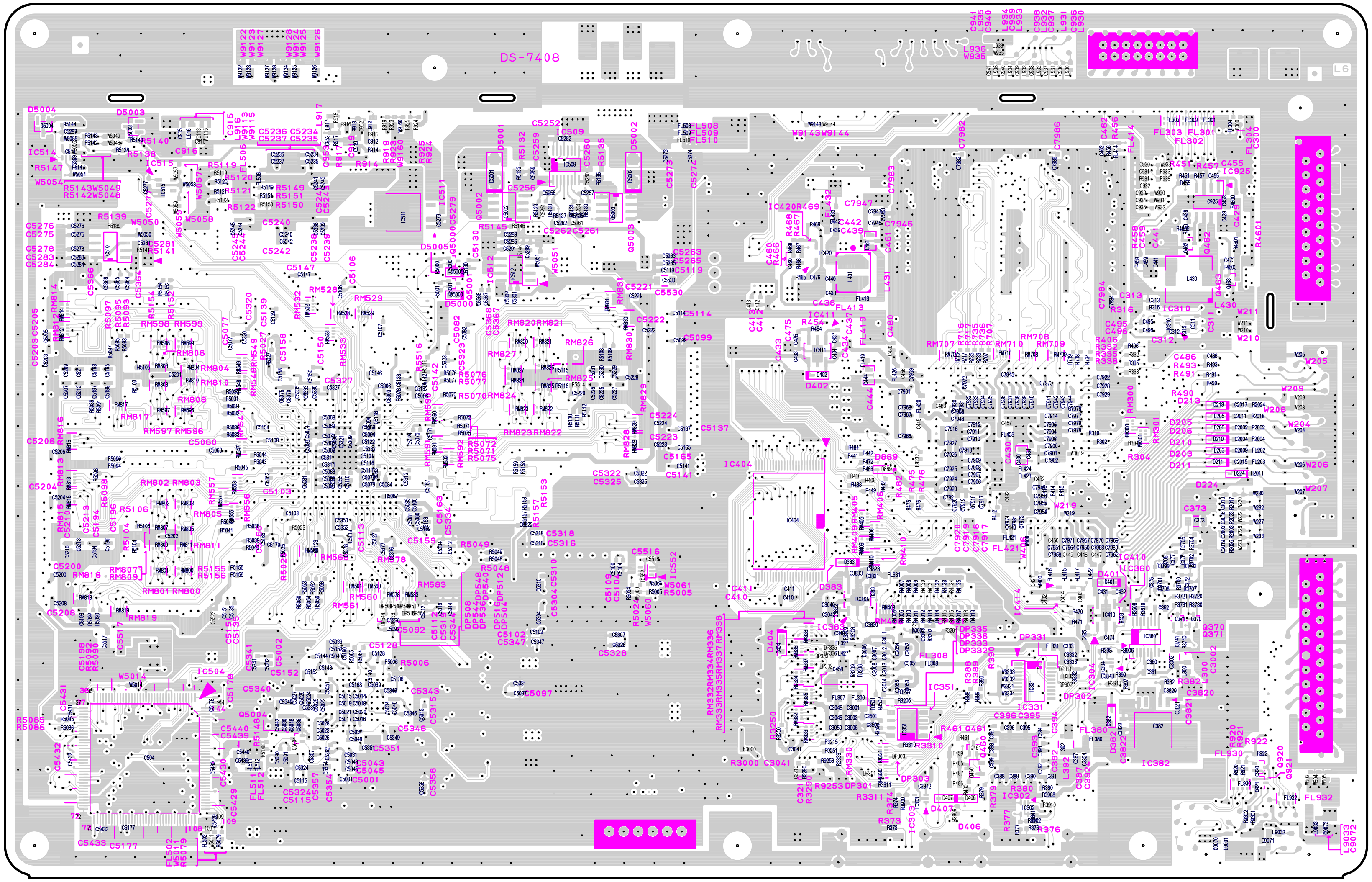
U04B LOWB [Bottom] (PE0197)


TOSHIBA
V28A000244A0
ELC-4970
R865
DE58
D860
DE98
P818
R894
R896
D897
R897
R895
DE95
DE91
RE90
CE93
QE91
QE91A
DE51
CE51
C852
Q855
R850
R858
R857
Q854
R859
R855
R851
R852
R856
Q851
Q853
LE53
R863
Q856
R864
P803A
RE60
CE52
QE64
CE53
RE57
RE56
RE59
RE58
RE61
QE90A
CE59
RE64
RE63
QE77
QE92
CE98
RE94
RE92
QE73
ZE90
QE94A
DE97
RE74
DE90
QE90
CE50
D863
Q860A
Q860
C860
D862
D861
R862
QE94
ZE91
RE73
CE92
CE91
CE90
RE50
QE51
DE50
QE40
CE41
CE94
CE97
CE58
LE90
DE96
CE40
CE42
GE50
Z860
DE57
DE49
CE31
LE52
L888
L889
LE77
CE54
RE70
RE69
RE27
RE28
DE48
CE60
RE72
RE71
RE36
RE35
DE53
CE57
RE37
DE76
RE31
QE50
RE32
RE33
QE49
RE34
RE24
RE25
RE26
QE47
QE48
CE49
QE75
RE52
RE54
RE53
DE55
RE51
DE92
P810A
LE74
QE74
CE36
QE35A
DE52
RE82
QE82
QE71
DE93
CE87
DE94
P806A
QE76
CE96
CE35
QE35
RE83
DE54
DE56
RE98
RE91
QE98
CE55
RE95
QE96
CE56
LE72
CE30
LE76
CE72
LE73
QE52
QE53
RE93
RE96
QE97
QE47
8 7 6 5 4 3 2 1
RE88
RE97
CE95
C831
C830
QE95
PJ50B
P814B
3 2 1
PL106
7 6 5 4 3 2 1
P850
PG02
15
14
2
1
19
18

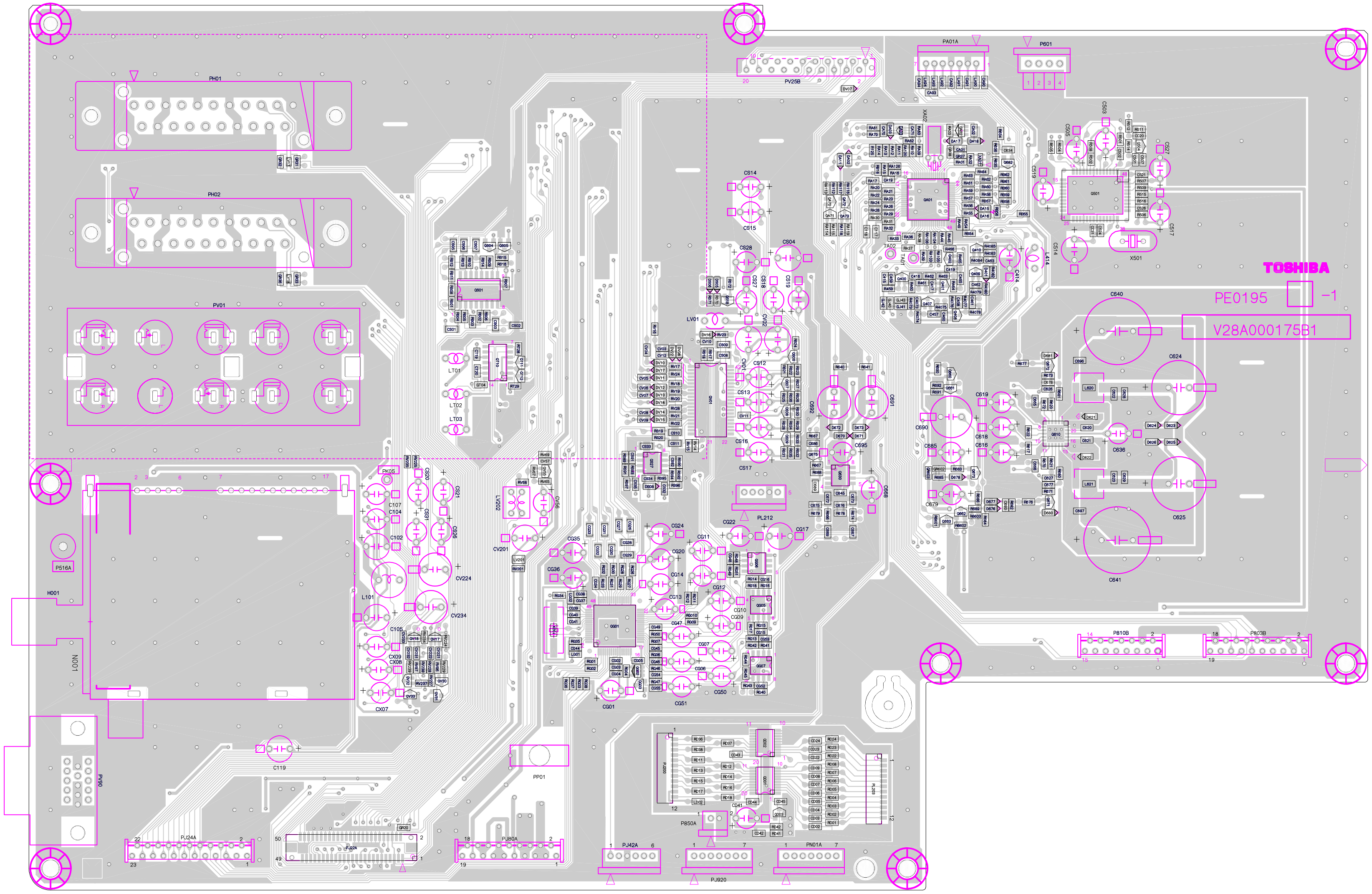
U01AS SIGNAL [Top] (PE0194)


TOSHIBA
V28A000174A1
PE0194
PJ50C
PJ200
PJ930
PJ920
PJ921
PJ50A
CN322
PJ80
PJ22
PJ24
PJ404
CN320
CN321
CN323
CN400
IC700
IC701
IC702
IC300
IC301
IC500
IC501
IC502
IC503
IC505
IC506
IC507
IC508
L5000
L5004
L5006
L5009
X700
X3001
X5000
PJ505

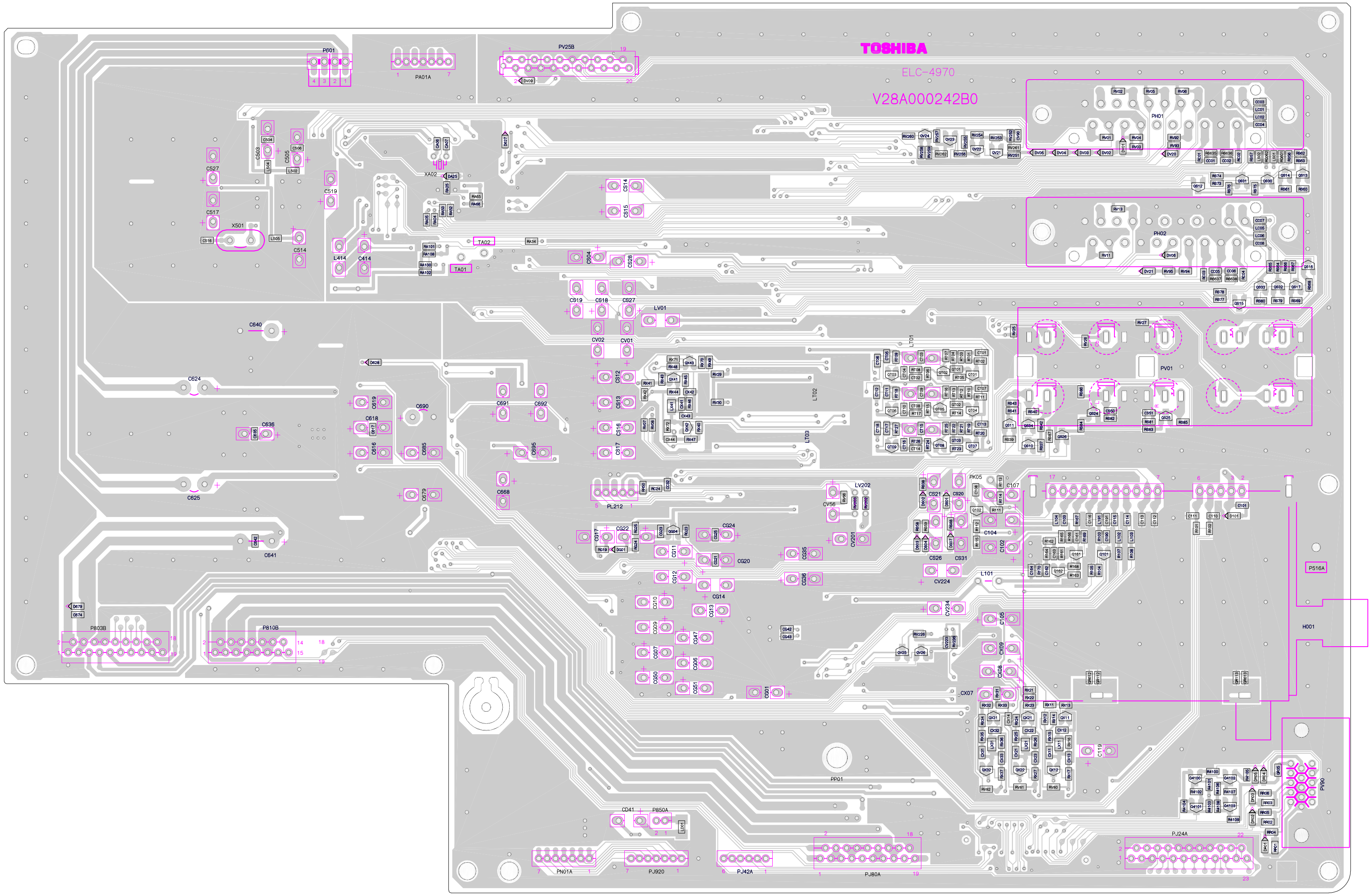
U01AS SIGNAL [Bottom] (PE0194)



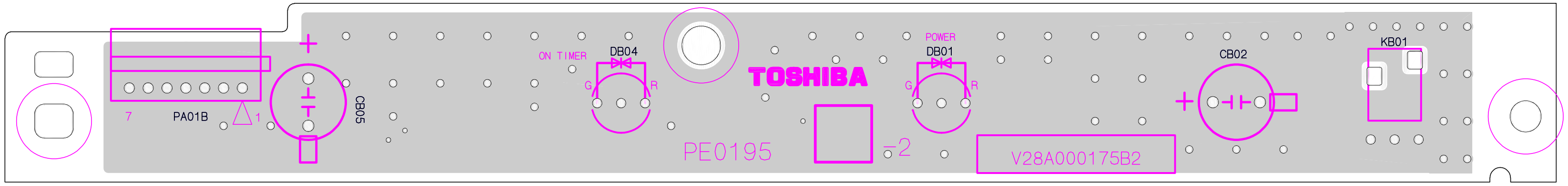
U02A AV TERM [Top] (PE0195)


PH01
PH02
PV01
PV25B
PA01A
P601
TOSHIBA
PE0195
-1
V28A000175B1
QA01
Q501
X501
C640
C624
C625
C641
P810B
P803B
PJ24A
PJ22A
PJ80A
PJ42A
PJ920
PN01A
P850A
PP01
C119
PU90
H001
N001
P516A
L101
LV202
CV201
CV224
CV234
PL212
Q001

U02A AV TERM [Bottom] (PE0195)


TOSHIBA
ELC-4970
V28A000242B0
P601
PA01A
PV25B
PH01
PH02
PV01
X501
XA02
TA01
TA02
LV01
L414
C414
C640
C624
C636
C625
C641
C690
C691
C692
P803B
P810B
PL212
LV202
PK05
L101
CX07
H001
P516A
PP01
PV90
PJ24A
PJ80A
PJ42A
PJ920
PN01A
P850A
C041

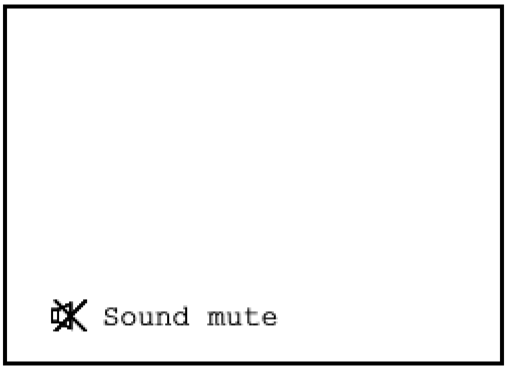
U02B LED [Top] (PE0195)


PA01B
7
1
CB05
ON TIMER
DB04
G
R
TOSHIBA
PE0195
2
POWER
DB01
G
R
V28A000175B2
CB02
KB01

ADJUSTMENT

Service Mode

Entering to Service Mode



🔇 Sound mute

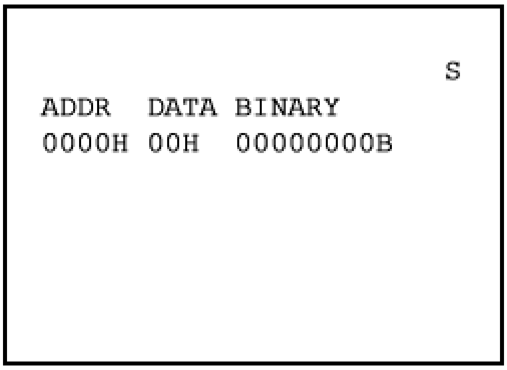
1. Set VOLUME to minimum and press 🔇 button once on remote control.

↓

2. Press 🔇 button again and hold button down.

↓

Service Mode display



```
                                 S
ADDR   DATA  BINARY
0000H  00H   00000000B
```

3. While holding the 🔇 button, press MENU button on TV set.

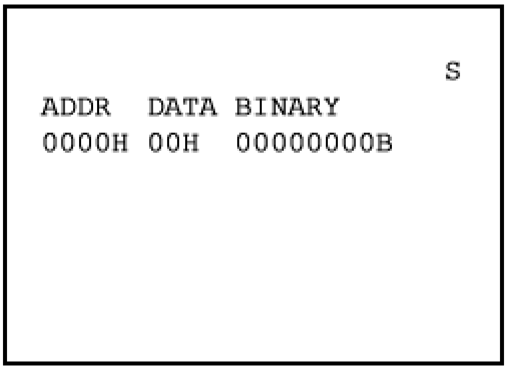
Displaying the Adjustment Menu

Press MENU button on TV.

Service Mode

Press ↑ ↓ Press

Adjustment Mode



```
ADDR  DATA BINARY
0000H 00H  00000000B
```

Key Function in the Service Mode

The following key entry during display of adjustment menu provides special functions.

CAUTION: Never try to perform initialization unless you have changed the memory IC.

	⇒ button (on remote control)

Test signal selection	
Selection of the adjustment items	CH ▲/▼ (on TV or remote control)
Change of the data value	Volume ⊿ +/- (on TV or remote control)
Adjustment menu mode ON/OFF	MENU button (on TV)
Initialization of the memory (QA02)	CALL + CH button on TV (▲)
Reset the count of operating protect circuit to "00"	CALL + CH button on TV (▼)
Turn off I2C bus communication	CALL + CH button on TV (▲)
"RCUT" selection	1 button
"GCUT" selection	2 button
"BCUT" selection	3 button
"CNTX" selection	4 button
"COLC" selection	5 button
"UVTT" selection	6 button
Automatic A/D Adjustment (PC, Component, Composite (PAL, NTSC))	7 button
Self diagnostic display ON/OFF	9 button

Selecting the Adjusting Item

Every pressing of CH ▲ button in the service mode changes the adjustment items in the order of table below. (▼ button for reverse order)

SETTING & ADJUSTING DATA

[SERVICE MODE]

ADJUSTING ITEMS AND DATA IN THE SERVICE MODE:

Note:

The image system data of RCUT-BDRV is different by each image format.
The PAL value is indicated in the table.
Never adjust H.POS and V.POS except PAL/WIDE mode.

Item	Name of adjustment
RCUT	R CUT OFF
GCUT	G CUT OFF
BCUT	B CUT OFF
RDRV	R DRIVE
GDRV	G DRIVE
BDRV	B DRIVE
BRTC	BRIGHTNESS CENTER
COLC	COLOR CENTER
UVTT	BASE BAND TINT
CNTX	CONTRAST MAX
VOLUX	MAX VOLUME LIMITED
PLLW0	PLL WAIT TIME
PLLW1	PLL WAIT TIME
PLLW2	PLL WAIT TIME
PLLW3	PLL WAIT TIME
PLLW4	PLL WAIT TIME
PLLW5	PLL WAIT TIME
OPT1	TV SET OPTION 1
OPT2	TV SET OPTION 2 (HOTEL MODE)
OPT3	TV SET OPTION 3
OPT4	TV SET OPTION 4 (PANEL OPT DATA)
OPT5	TV SET OPTION 5 (PANEL OPT DATA)
OPT6	TV SET OPTION 6 (HOTEL MODE)
OPT7	TV SET OPTION 7 (HOTEL MODE)
OPT8	TV SET OPTION 8 (HOTEL MODE)
TVOP	TV SET OPTION
ID	MODEL ID
BDWID	BORDER WIDTH FOR EXACT SCAN
BDHIT	BORDER HEIGHT FOR EXACT SCAN
FPLG	MASK_ENABLE (SD/HD)
FPLG2	Channel LOGO Vector Clip SW (SD)

FPLG3	Channel LOGO Vector Clip SW (HD)

Factory preset data will be loaded after setting Model ID data.

(Refer to Initialization of Memory Data of QA02 and setting data of signal board.)

Adjusting the Data

Pressing of VOLUME ⊿ +/- button will change the value of data in the range from 00H to FFH. The variable range depends on the adjusting item.

I2C Bus Off

Turn off I2C communication between IC700 and IC400.

1) Press and hold the CALL button on the remote control, then press the Volume ▲ button on the TV.

2) Display "BUS Off" OSD.

3) I2C communication turned off.

Note:

To return Bus on status, press and hold the CALL button on the remote control, then press the Volume ▲ button on the TV again. TV will be turned off and automatically turned on, then status will be Bus On.

Setting TVOP

Enter to service mode and select menu of TVOP by pressing P▲ or P▼ during display of adjustment menu. After selecting TVOP, press ⊿ + or ⊿ - to set I2C check function to disable or enable as below.

TVOP	FUNCTION DESCRIPTION	1	0 (Normal)
D5 (bit5)	I2C check between IC700 and IC400. (WDT)	Disable	Enable

Setting Panel Option Data

Panel option data is subject to OP4 and OP5.
Enter to service mode and select menu of OPT4 or OPT5 by pressing P▲ or P▼ during display of adjustment menu. After selecting OPT4 or OPT5, press ◿ + or ◿ - to set OPT4 or OPT5 value as table below.

Panel option data

Series		Model name	Panel vendor	OPT4 value	OPT5 value
WL68	EU Ready	32WL68P	AUO	0x45	0x11
		37WL68P	AUO	0x46	0x11
	EU/UK Digital	32WLT68	AUO	0x45	0x11
		37WLT68	AUO	0x46	0x11
		42WLT68	AUO	0x47	0x11

OP4

Ex. OPT4 value 0xB7 is for 42 inches CMP made 1080p panel.

		OPT4							
		D7 (bit7)	D6 (bit6)	D5 (bit5)	D4 (bit4)	D3 (bit3)	D2 (bit2)	D1 (bit1)	D0 (bit0)
Panel vender	LPL	-	0	0	1	-	-	-	-
	SHP	-	0	1	0	-	-	-	-
	CMO	-	0	1	1	-	-	-	-
	AUO	-	1	0	0	-	-	-	-
Inch size	26	-	-	-	-	0	0	1	1
	32	-	-	-	-	0	1	0	1
	37	-	-	-	-	0	1	1	0
	42	-	-	-	-	0	1	1	1
	47	-	-	-	-	1	0	0	0

OP5

		OPT5							
		D7 (bit7)	**D6 (bit6)**	**D5 (bit5)**	**D4 (bit4)**	**D3 (bit3)**	**D2 (bit2)**	**D1 (bit1)**	**D0 (bit0)**
AUO Panel	PMVA	-	-	0	-	-	-	-	-
	AMVA	-	-	1	-	-	-	-	-
100 Hz Drive	Off	-	-	-	0	-	-	-	-
	On	-	-	-	1	-	-	-	-
Panel Resolution	WXGA	-	-	-	-	0	0	0	1
	1080p	-	-	-	-	0	0	1	0

Exit from Service Mode

Pressing POWER button to turn off the TV once.

Initialization of Memory Data of QA02 and setting data of signal board.

After replacing QA02 or signal board, the following initialization is required.

CAUTION: Never attempt to initialize the data unless QA02 has been replaced.
Whenever using new signal board to the set, setting the Model ID data according to Panel option data.

1) Enter the service mode.

2) Select menu of ID by pressing P▲ or P▼ during display of adjustment menu in the service mode.

3) Change ID data into MODEL ID to initialize by pressing ◿ + or ◿ -., refer to table below.

4) Press and hold the CALL button on the remote control, then press the CHANNEL ▲ button on the TV.

5) Initialization progress dialog including model name and panel vender is shown.

Progress status is "WRITING".

6) Progress status is changed "OK" and power cycle (automatically). Then QA02 initialization has been completed.

7) Enter the service mode and select version check mode. Confirm if model name and model id set is correct. If not, repeat steps 1) to 6).

Note:

In case initialization by setting wrong MODEL ID is done, there is a possibility of abnormal display.

8) Set I2C check function of TVOP to enable.

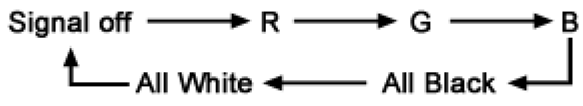
9) Check the picture carefully. If necessary, adjust any adjustment item above.
Perform "Auto tune" on the owner□fs manual.

MODEL ID (HEX)	**Europe**	
	Model name	**Panel vender**
0x01	32WLT68	AUO
0x02	37WLT68	AUO
0x03	42WLT68	AUO
0x04	32WL68P	AUO
0x05	37WL68P	AUO
0x06		
0x07		
0x08		
0x09		
0x10		
0x11		
0x12		
0x13		
0x14		
0x15		
0x16		
0x17		
0x18		

0x19		
0x20		
0x21		
0x22		
0x23		
0x24		
0x25		
0x26		
0x27		
0x28		
0x29		
0x30		
0x31		
0x32		
0x33		

Test Signal Selection

Every pressing of ⇥ button on the remote control changes the built-in test patterns on screen as described below in Service Mode.

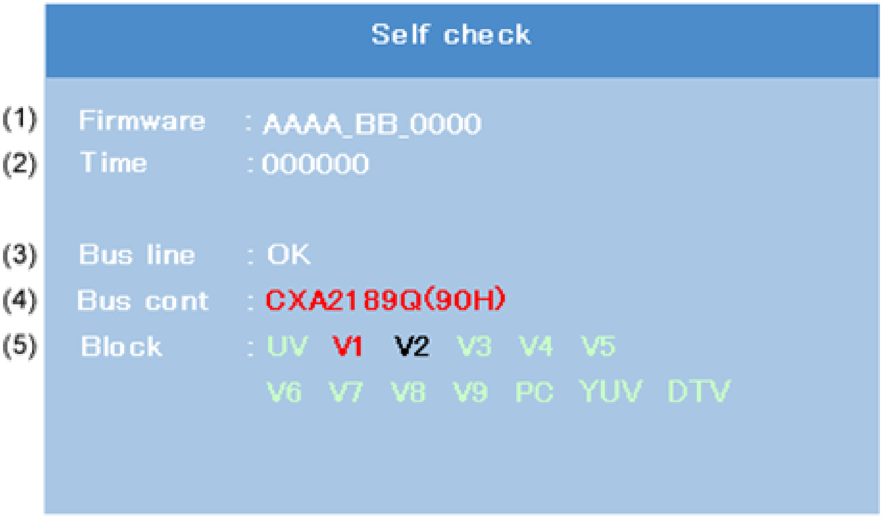


Picture	Signal
	Red raster
	Green raster

	Blue raster
	All Black
	All White

Self Diagnostic Function

1. Press "9" button on remote control during display of adjustment menu in the service mode. The diagnosis will begin to check if interface among IC's is executed properly.
2. During diagnosis, the following displays are shown.



Self check

(1) Firmware : AAAA_BB_0000
(2) Time : 000000

(3) Bus line : OK
(4) Bus cont : CXA2189Q(90H)
(5) Block : UV V1 V2 V3 V4 V5
V6 V7 V8 V9 PC YUV DTV

(1) Firmware :
Version information of microprocessor
Series name (AAAA) and market area (BB) and software program version (0000)

(2) Time : Total hour of turn the TV on. (Unit : H)

(3) Bus line : -- "OK" is normal

SCL-GND (Red indication) : SCL-GND short circuit
SDA-GND (Red indication) : SDA-GND short circuit
SCL-SDA (Red indication) : SCL-SDA short circuit

(4) Bus cont : --- "OK" is normal.
NG is abnormal (Red indication).
When the abnormal status is detected, type name of semiconductor is indicated in red colour.

(5) Block
UV : TV reception mode
V1 - V9 : VIDEO 1-9 input mode
PC : PC mode
YUV : YUV mode
DTV : DTV mode

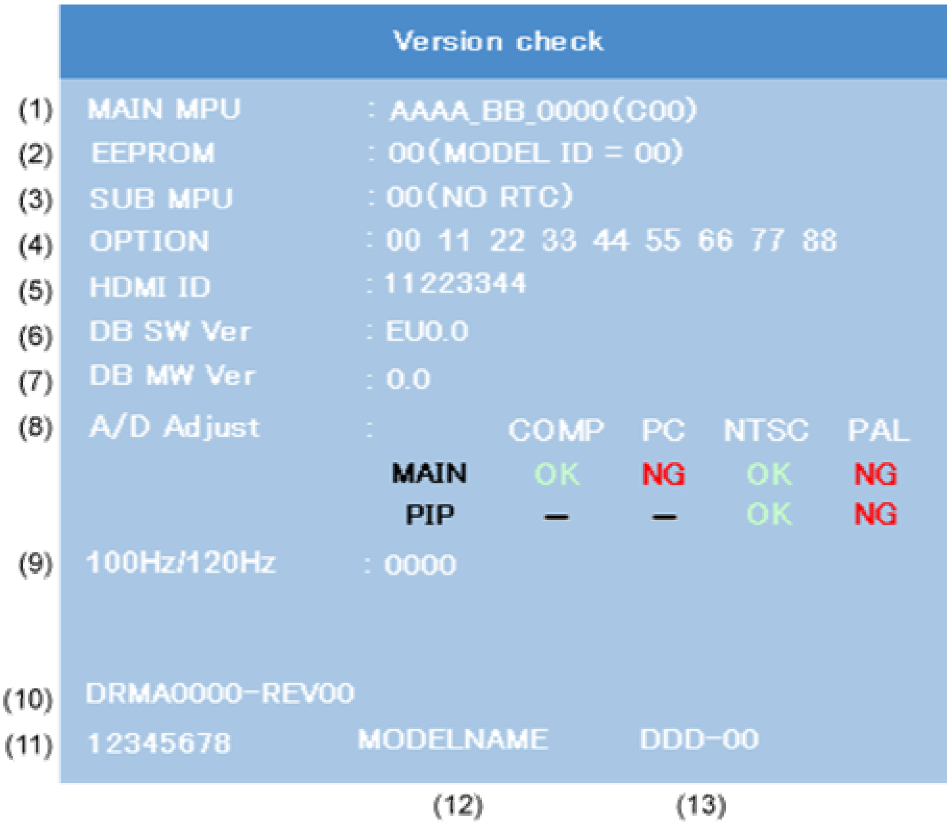
	WL68, WLT68
UV	RF
V1	➔ 1 (SCART (FULL))
V2	➔ 2 (SCART (S+AV))
V3	➔ 3 (Composite/Component)
V4	HDMI1
V5	HDMI2
V6	HDMI3
V7	--
V8	--
V9	--
PC	PC
YUV	--
DTV	--

Version Check Mode

1. Press "9" button twice on remote control during display of adjustment menu in the

service mode.
The version of main MPU will be checked.

2. During Version Check, the following displays are shown.



Version check

MAIN MPU : AAAA_BB_0000(C00)
EEPROM : 00(MODEL ID = 00)
SUB MPU : 00(NO RTC)
OPTION : 00 11 22 33 44 55 66 77 88
HDMI ID : 11223344
DB SW Ver : EU0.0
DB MW Ver : 0.0
A/D Adjust :

	COMP	PC	NTSC	PAL
MAIN	OK	NG	OK	NG
PIP	—	—	OK	NG

100Hz/120Hz : 0000

DRMA0000-REV00
12345678 MODELNAME DDD-00

(1) MAIN MPU :
Version information of microprocessor
Series name and Code Program Version (4 figure number) and OSD Version (2 figure number).

(2) EEPROM :
Version information of EEPROM : Display 1 byte data.

(3) SUB MPU :
Version information of SUB MPU : Display 1 byte data.

(4) OPTION :
Option information : Display six numbers of 1 byte data.

(5) HDMI ID :
HDMI ID information : Display 4 byte data.

(6) SW Ver
Version information of DB software. (Only digital model.)

(7) MW Ver
Version information of DB software middleware. (Only digital model)

(8) A/D Adjust

A/D adjustment item.

--MAIN : It's enable only in double Window model. A/D adjustment status of main picture.
--PIP : It's enable only in double Window model. A/D adjustment status of sub picture.
--COMP : Component input
--PC : PC input
--NTSC : NTSC (60 Hz) SD signal (composite input).
--PAL : PAL (50 Hz) SD signal (composite input).
--OK : A/D adjustment set correctly.
--NG : A/D adjustment set incorrect.
-- : A/D adjustment is not needed. Because its picture format isn't used.

(9) 100 Hz FPGA Software Version

It's enable only in 100 Hz drive panel model.

Upper 2 figure number means function versions of double frequency convert.

Lower 2 figure number means function version of vector complement.

(10) Memory Data Version

Version information of EEPROM.

DRMA**** means model number of EEPROM.

REV** means version of EEPROM.

(11) CD number

CD information (ascii code). : Display 4 byte data.

(12) Model Name

Model name information (ascii code). : Display 7 byte data.

(13) LCD Panel Vender information display

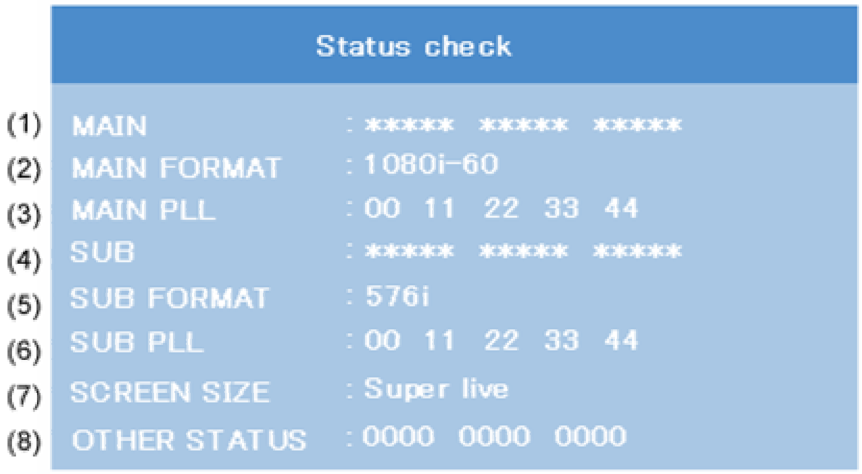
The following Panel Vender (DDD) and screen size (00) are displayed.

Example : AUO-32 indicates that Vender is AUO and Screen Size is 32 inch

Status Check Mode

1. Press "9" button thrice on remote control during display of adjustment menu in the service mode.
   The status of this model will be checked.

2. During Status Check, the following displays are shown.



Status check

(1) MAIN : ****** ****** ******
(2) MAIN FORMAT : 1080i-60
(3) MAIN PLL : 00 11 22 33 44
(4) SUB : ****** ****** ******
(5) SUB FORMAT : 576i
(6) SUB PLL : 00 11 22 33 44
(7) SCREEN SIZE : Super live
(8) OTHER STATUS : 0000 0000 0000

(1) MAIN :
Main source information :
Display RF position number (0 - 99) on the main screen, or Input Source (EXT1/2/3/HDMI etc.)

(2) MAIN FORMAT :
Display Video and PC format information

(3) MAIN PLL :
Main PLL information : Display 1 byte data at five.

(4) SUB :
Sub source information :
Display RF position number (0 - 99) on the Sub screen, or Input Source (EXT1/2/3/HDMI etc.)
This item displays only Double window model.

(5) SUB FORMAT :
Display Video and PC format information
This item displays only Double window model.

(6) SUB PLL :
Sub PLL information : Display 1 byte data at five.
This item displays only Double window model.

(7) SCREEN SIZE :
Display the screen size as follows.

Exact Scan
Wide
Super Live 2
Cinema 2

4:3
Super Live 1
Cinema 1
Subtitle
14:9

Note:

Exact Scan is shown only for 1080p panel model with video input mode except pc.

(8) OTHER STATUS :

Other status information : Display three numbers of 2 byte data.

Setting Hotel Mode

Enter to service mode and select Hotel Mode menu by pressing P▲ or P▼.
After selecting Hotel Mode, press ⊿ + to enter details setting in Hotel Mode.

To select menu, press P▲ or P▼ and press OK to enter the adjustment menu of table bellow.
To move the cursor in the adjustment, press ⊿ + or ⊿ -.

1. By pressing P▲ or P▼, OPT2 setting will change the value either 1 or 0 on selected items as follows;

OP2

OPT2	FUNCTION DESCRIPTION	1	0 (Normal)
D7 (bit7)	- (no use)	-	-
D6 (bit6)	- (no use)	-	-
D5 (bit5)	FRONT Key	Disable	Enable
D4 (bit4)	All keys except input selector key (Video/TV)	Disable	Enable
D3 (bit3)	User remote control operation	Disable (Service mode and Supere User mode may possible to setting only)	Enable
D2 (bit2)	Disable SET UP MENU except language. (tuning SETUP MENU)	Disable (Display the language only)	Enable

D1 (bit1)	Disable SETUP MENU	Disable	Enable
D0 (bit0)	HOTEL Mode	On (Enable the setting of D1 from to D7)	Off (Normal)

VOLUX

Set VOLUX as following.

1) Set speaker volume to 100. (Any value is OK, but 100 is better to check sound level.)
2) Down value of VOLUX until finding suitable sound volume level.

VOLUX	FUNCTION DESCRIPTION	1	0 (Normal)
D7 (bit7) ~ D0 (bit0)	Max Limiter of Volume Control	0x00 ~ 0x7F (Normal: 0x7C)	

OP6

OPT6	FUNCTION DESCRIPTION	1	0 (Normal)
D7 (bit7)	Enable mode that POS or VIDEO program number will be appeared in forced when turn ON the main power	Enable	Disable
D6 (bit6) ~ D0 (bit0)	POS or VIDEO program number	0 ~ 127 [decimal] (Normal: 0) POS number: 0 ~ 99 VIDEO number: 100 ~ 127 (DTV = 100, VIDEO = 101, VIDEO = 102..) 100 is used as ATV when DTV option is disable.	

OP7

OPT7	FUNCTION DESCRIPTION	1	0 (Normal)
D7 (bit7)	Enable mode that speaker volume will be set in forced when turn ON the main power	Enable	Disable
D6 (bit6) ~ D0 (bit0)	Forced speaker volume	0 ~ 100 [decimal] (Normal: 0) Value above 100 is no effect.	

OP8

OPT8	FUNCTION DESCRIPTION	1	0 (Normal)
D7 (bit7) ~ D3 (bit3)	- (no use)	-	-
D2 (bit2)	Enable mode that picture mode will be set in forced when turn ON the main power	Enable (Display the language only)	Disable
D1 (bit1) ~ D0 (bit0)	Forced picture mode	0 [dec]: Dynamic (mode-1) (Normal) 1 [dec]: Standard (mode-2) 2 [dec]: Mild (mode-3) 3 [dec]: Memory (mode-M)	

LED Indication

The Green and Red LEDs on the TV (at the bottom center of the TV) indicate the TV's status, as described below.

- Red ON (solid) and Green OFF = The TV power cord is plugged in.
- Green ON (solid) and Red ON = The On timer is operating.

	LED Indication	Condition	Solution
1	Green is OFF; Red blinks continuously at 0.5-second intervals.	Abnormal operation	Turn OFF the TV and unplug the power cord. Plug the power cord in again and turn ON the TV.
2	Green is OFF; Red blinks continuously at 1-second intervals.	Abnormal operation of BUS line.	Turn OFF the TV and unplug the power cord. Plug the power cord in again and turn ON the TV.

PARTS LIST

Precaution

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION" FOR DIRECT VIEW CTV ONLY, "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" OF THIS MANUAL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and
should be replaced only with types identical to those in the original circuit or specified in the parts list.

The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the SAFETY PRECAUTION and PRODUCT SAFETY NOTICE.

Do not degrade the safety of the receiver through improper servicing.

Note:

- The part number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.
- The PC board assembly with ✱ mark is no longer available after the end of the production.

Abbreviations

Capacitors CD : Ceramic Disk

Resistors CF : Carbon film
OMF : Oxide Metal Film
PF : Plastic Film
CC : Carbon Composition
VR : Variable Resistor

EL : Electrolytic
MF : Metal Film
FR : Fusible Resistor

All CD and PF capacitors are ±5 %, 50 V and all resistor, ±5 %, 1/6 W unless otherwise noted.

U02D DB DOWNLOAD (PE0195)

	Location	Parts No.	Description
✱	U02D	75004441	PC BOARD ASSY, PE0195A4, DB DOWNLOAD
	CL02	76092883	CAPACITOR, CERAMIC CHIP, 50V B 0.1UF K
	GR60	76000445	CHIP JUMPER, 1608TYPE
	GR61	76000445	CHIP JUMPER, 1608TYPE
	PL05B	23713776	PLUG, 3P 2.5MM W, S3B-EH
	PL05C	23713759	PLUG, 8P 2.5MM G, B8B-EH-F1-TV4
	RL01	76011100	RESISTOR, CHIP, 1/20W 10 OHM J

U03A FRONT HDMI (PE0196)

	Location	Parts No.	Description
✱	U03A	75004434	PC BOARD ASSY, PE0196A1, FRONT_HDMI
	C604	76109103	CAPACITOR, CERAMIC CHIP, 50V B 0.01UF K
	C605	76109103	CAPACITOR, CERAMIC CHIP, 50V B 0.01UF K
	CC11	76109102	CAPACITOR, CERAMIC CHIP, 50V B 1000PF K
	CC12	76109102	CAPACITOR, CERAMIC CHIP, 50V B 1000PF K
	CH01	76092789	CAPACITOR, CERAMIC CHIP, 6.3V B 1UF K
	CH02	76092730	CAPACITOR, CERAMIC CHIP, 16V B 0.1UF K
	CH03	76092730	CAPACITOR, CERAMIC CHIP, 16V B 0.1UF K
	CH04	76092730	CAPACITOR, CERAMIC CHIP, 16V B 0.1UF K
	CH05	76092730	CAPACITOR, CERAMIC CHIP, 16V B 0.1UF K
	CH06	76092730	CAPACITOR, CERAMIC CHIP, 16V B 0.1UF K
	CH07	76092730	CAPACITOR, CERAMIC CHIP, 16V B 0.1UF K
	CH08	76092730	CAPACITOR, CERAMIC CHIP, 16V B 0.1UF K
	CH09	76092730	CAPACITOR, CERAMIC CHIP, 16V B 0.1UF K
	CH10	76092730	CAPACITOR, CERAMIC CHIP, 16V B 0.1UF K
	CH11	76092730	CAPACITOR, CERAMIC CHIP, 16V B 0.1UF K
	CH12	76092730	CAPACITOR, CERAMIC CHIP, 16V B 0.1UF K
	CH13	76092730	CAPACITOR, CERAMIC CHIP, 16V B 0.1UF K
	CH14	76092789	CAPACITOR, CERAMIC CHIP, 6.3V B 1UF K
	CH15	76105101	CAPACITOR, CERAMIC CHIP, 50V CH 100PF J
	CH16	76092729	CAPACITOR, CERAMIC CHIP, 16V B 0.068UF K
	CH18	76092789	CAPACITOR, CERAMIC CHIP, 6.3V B 1UF K
	CH19	76092730	CAPACITOR, CERAMIC CHIP, 16V B 0.1UF K
	CV121	76109103	CAPACITOR, CERAMIC CHIP, 50V B 0.01UF K
	CV122	76105101	CAPACITOR, CERAMIC CHIP, 50V CH 100PF J
	CY650	76109103	CAPACITOR, CERAMIC CHIP, 50V B 0.01UF K
	LH01	23246624	COIL, CHIP, TRF4100CC
	LH02	23103230	BEAD INDUCTOR, TEM2134AD
	LH05	23246624	COIL, CHIP, TRF4100CC
	P661	23365444	EARPHONE JACK, D3.5
	PH01	75001875	CONNECTOR
	PH02	75004436	CONNECTOR, FI-RE31S-VF-R1300
	PV25A	75004437	CONNECTOR, B20B-CZHK-B-1(LF)(SN)(V)
	PV60	23365275	PHONO JACK, 3P V-L-R, YKC21
	PV61	23023300	JACK, Y/C YKF51-5560
	QH01	75003062	IC, TMDS341
	R696	76871101	RESISTOR, CHIP, 1/8W 100 OHM J
	R697	76871101	RESISTOR, CHIP, 1/8W 100 OHM J
	R698	76871101	RESISTOR, CHIP, 1/8W 100 OHM J

	R699	76871101	RESISTOR, CHIP, 1/8W 100 OHM J
	RC11	76011821	RESISTOR, CHIP, 1/20W 820 OHM J
	RC12	76011821	RESISTOR, CHIP, 1/20W 820 OHM J
	RH06	76011473	RESISTOR, CHIP, 1/20W 47K OHM J
	RH08	76011222	RESISTOR, CHIP, 1/20W 2.2K OHM J
	RH09	76011222	RESISTOR, CHIP, 1/20W 2.2K OHM J
	RH12	76011474	RESISTOR, CHIP, 1/20W 470K OHM J
	RH13	76000418	RESISTOR, CHIP, 1/16W 4.7K OHM F
	RH14	76011102	RESISTOR, CHIP, 1/20W 1K OHM J
	RV121	76011750	RESISTOR, CHIP, 1/20W 75 OHM J
	RV122	76011750	RESISTOR, CHIP, 1/20W 75 OHM J
	RV123	76872750	RESISTOR, CHIP, 1/16W 75 OHM J
	WH01	76000445	CHIP JUMPER, 1608TYPE
	WH02	76000445	CHIP JUMPER, 1608TYPE

U04A POWER (PE0197)

	Location	Parts No.	Description
✱	U04A	75004431	PC BOARD ASSY, PE0197B1, POWER
⚠	C801	76503507	CAPACITOR, PLASTIC FILM, AC275V 0.22UF K
⚠	C802	76503507	CAPACITOR, PLASTIC FILM, AC275V 0.22UF K
⚠	C803	76503169	CAPACITOR, PLASTIC FILM, 630V 0.1UF J
	C804	76214103	CAPACITOR, CERAMIC DISC, 500V B 0.01UF K
	C805	76092281	CAPACITOR, CERAMIC DISC, AC250V E 4700PF
	C810	76125035	CAPACITOR, ELECTROLYTIC, 450V 470UF M
	C811	76092567	CAPACITOR, CERAMIC DISC, AC250V E 1000PF M
⚠	C812	76092567	CAPACITOR, CERAMIC DISC, AC250V E 1000PF M
⚠	C813	76567334	CAPACITOR, PLASTIC FILM, 50V 0.33UF J
	C815	76567474	CAPACITOR, PLASTIC FILM, 50V 0.47UF J
	C816	76073090	CAPACITOR, ELECTROLYTIC, 50V 100UF M
	C817	76567224	CAPACITOR, PLASTIC FILM, 50V 0.22UF J
	C819	76214101	CAPACITOR, CERAMIC DISC, 500V B 100PF K
	C820	76567224	CAPACITOR, PLASTIC FILM, 50V 0.22UF J
	C821	76092343	CAPACITOR, CERAMIC DISC, 2KV 680PF K
	C822	76092344	CAPACITOR, CERAMIC DISC, 2KV 820PF K
	C823	76092341	CAPACITOR, CERAMIC DISC, 2KV R 470PF K
	C824	76591102	CAPACITOR, PLASTIC FILM, 50V 1000PF J
	C825	76567105	CAPACITOR, PLASTIC FILM, 50V 1 UF J
	C826	76092341	CAPACITOR, CERAMIC DISC, 2KV R 470PF K
	C827	76678229	CAPACITOR, ELECTROLYTIC, 200V 2.2UF M
	C883	76125039	CAPACITOR, ELECTROLYTIC, 35V 4700UF M
	C888	76109102	CAPACITOR, CERAMIC CHIP, 50V B 1000PF K
	C889	76073094	CAPACITOR, ELECTROLYTIC, 50V 1000UF M
	C890	76567334	CAPACITOR, PLASTIC FILM, 50V 0.33UF J
	CE04	76092281	CAPACITOR, CERAMIC DISC, AC250V E 4700PF
	CE05	76092281	CAPACITOR, CERAMIC DISC, AC250V E 4700PF
	CE07	76567474	CAPACITOR, PLASTIC FILM, 50V 0.47UF J
	CE09	76668339	CAPACITOR, ELECTROLYTIC, 35V 3.3UF M
	CE10	76125040	CAPACITOR, ELECTROLYTIC, 450V 120UF M
	CE12	76567104	CAPACITOR, PLASTIC FILM, 50V 0.1UF J
⚠	CE13	76092565	CAPACITOR, CERAMIC DISC, AC250V B 470PF K
⚠	CE14	76092565	CAPACITOR, CERAMIC DISC, AC250V B 470PF K
	CE16	76073181	CAPACITOR, ELECTROLYTIC, 35V 56UF M
	CE17	76092339	CAPACITOR, CERAMIC DISC, 2KV 330PF K
	CE23	76214471	CAPACITOR, CERAMIC DISC, 500V B 470PF K
	CE24	76285104	CAPACITOR, CERAMIC CHIP, 50V B 0.1UF K
	CE29	76436331	CAPACITOR, CERAMIC DISC, 50V SL 330PF J

	CE43	76567104	CAPACITOR, PLASTIC FILM, 50V 0.1UF J
	CE82	76676470	CAPACITOR, ELECTROLYTIC, 100V 47UF M
	CE85	76073178	CAPACITOR, ELECTROLYTIC, 25V 3300UF M
	D801	23362200	DIODE, D5SB60, 7009F07
	D801B	23717240	SCREW, BITTB3X10SZN
	D805	23357850	DIODE, ZENER, MTZJ9.1A
	D806	23357893	DIODE, ZENER, MTZJ27C
	D809	23357905	DIODE, ZENER, MTZJ36C
	D810	23357893	DIODE, ZENER, MTZJ27C
	D811	23357511	DIODE, AG01A
	D812	23357852	DIODE, ZENER, MTZJ9.1C
	D813	23357512	DIODE, AL01Z
	D852	23357697	DIODE, 1SS133
	D883	75001877	DIODE, FMEN-220A
	D883B	23717240	SCREW, BITTB3X10SZN
	D884	75001877	DIODE, FMEN-220A
	D884B	23717240	SCREW, BITTB3X10SZN
	D885	23357408	DIODE, FMX-12S(023-108)
⚠	D899	75001869	VARISTOR, V1=470V 2500A/2
	DE01	23362204	DIODE, D3SB60, 7109F08
	DE02	23357511	DIODE, AG01A
	DE03	23357511	DIODE, AG01A
	DE05	23357104	DIODE, 1SS244
	DE06	23357366	DIODE, FR105-B5
	DE07	23357900	DIODE, ZENER, MTZJ33B
	DE09	23357842	DIODE, ZENER, MTZJ6.8B
	DE12	23357512	DIODE, AL01Z
	DE13	23357512	DIODE, AL01Z
	DE14	23357512	DIODE, AL01Z
	DE15	23357892	DIODE, ZENER, MTZJ27B
	DE16	23357880	DIODE, ZENER, MTZJ20B
	DE17	23357512	DIODE, AL01Z
	DE19	23357854	DIODE, ZENER, MTZJ10B
	DE72	23357366	DIODE, FR105-B5
	DE75	23357408	DIODE, FMX-12S(023-108)
	DE75B	23717240	SCREW, BITTB3X10SZN
⚠	F801	23144304	FUSE, CARTRIDGE 5.2X20, 250V 6.3A
	F801A	23165433	FUSE HOLDER, 5.2
	F801B	23165433	FUSE HOLDER, 5.2
⚠	F802	23144380	FUSE, RADIAL LEAD SUB-MINIATUR, 250V 3.15A
⚠	FE01	23144380	FUSE, RADIAL LEAD SUB-MINIATUR, 250V 3.15A

⚠	L801	75004433	TRANSFORMER, CHOKE, 28MH 1.6A, ST-H0110
⚠	L802	23217794	TRANSFORMER, CHOKE, TPW2074AS
	L804	23103304	FERRITE CHOKE, TEM2011AA
	L805	23103304	FERRITE CHOKE, TEM2011AA
	L806	23248417	COIL, CHOKE, TLN3481AH
	L807	23248417	COIL, CHOKE, TLN3481AH
	L874	23103304	FERRITE CHOKE, TEM2011AA
	L875	23103304	FERRITE CHOKE, TEM2011AA
	L876	23103304	FERRITE CHOKE, TEM2011AA
	L878	23103304	FERRITE CHOKE, TEM2011AA
	L883	23248489	COIL, CHOKE, TLN3639AH
	LE06	23248417	COIL, CHOKE, TLN3481AH
	LE07	23248417	COIL, CHOKE, TLN3481AH
	LE11	23103304	FERRITE CHOKE, TEM2011AA
⚠	P801A	23713702	PLUG, 2P 11.88MM W VT
	P804	23713942	CONNECTOR, 10P, B10B-PH-K-S(LF)
	P805	23713942	CONNECTOR, 10P, B10B-PH-K-S(LF)
	P806B	23023385	PLUG, TWG-P15P-A1
	PG03	23165495	EARTH TERMINAL, MET31-0332
	PG04	23165495	EARTH TERMINAL, MET31-0332
	Q801	75003052	IC, STR-Z4567
⚠	Q826	23000823	IC, PHOTO COUPLER, TLP421F(GR)
	Q851	23205446	TRANSISTOR, 2SC2412K, Q T146
	Q852	23205446	TRANSISTOR, 2SC2412K, Q T146
	Q883	23135091	IC, SE024N
	QE01	23135072	IC, STRW6765
	QE01B	23717240	SCREW, BITTB3X10SZN
⚠	QE26	23000823	IC, PHOTO COUPLER, TLP421F(GR)
	QE83	23085587	IC, TA76431S
⚠	R801	76004716	RESISTOR, METAL GLAZE, 1/2W 2.2M OHM J
	R803	76366102	RESISTOR, CARBON FILM, 1/6W 1K OHM J
	R805	76011102	RESISTOR, CHIP, 1/20W 1K OHM J
	R806	76552470	RESISTOR, OXIDE METAL FILM, 1/2W 47 OHM J
	R807	76366393	RESISTOR, CARBON FILM, 1/6W 39K OHM J
	R808	76552101	RESISTOR, OXIDE METAL FILM, 1/2W 100 OHM J
	R809	76321689	RESISTOR, OXIDE METAL FILM, 1/2W 6.8 OHM J
	R812	76552471	RESISTOR, OXIDE METAL FILM, 1/2W 470 OHM J
	R813	76366220	RESISTOR, CARBON FILM, 1/6W 22 OHM J
	R814	76552470	RESISTOR, OXIDE METAL FILM, 1/2W 47 OHM J
	R815	76552100	RESISTOR, OXIDE METAL FILM, 1/2W 10 OHM J
	R816	76011331	RESISTOR, CHIP, 1/20W 330 OHM J

	R817	76377224	RESISTOR, CARBON FILM, 1W 220K OHM J
	R821	76322689	RESISTOR, OXIDE METAL FILM, 1W 6.8 OHM J
	R827	76383103	RESISTOR, OXIDE METAL FILM, 2W 10K OHM J
	R828	76383103	RESISTOR, OXIDE METAL FILM, 2W 10K OHM J
	R853	76011103	RESISTOR, CHIP, 1/20W 10K OHM J
	R854	76011102	RESISTOR, CHIP, 1/20W 1K OHM J
	R869	76011472	RESISTOR, CHIP, 1/20W 4.7K OHM J
	R873	76871152	RESISTOR, CHIP, 1/8W 1.5K OHM J
	R874	76000445	CHIP JUMPER, 1608TYPE
	R890	76011102	RESISTOR, CHIP, 1/20W 1K OHM J
⚠	R899	76004718	RESISTOR, METAL GLAZE, 1/2W 8.2M OHM J
	RE03	76382104	RESISTOR, OXIDE METAL FILM, 1W 100K OHM J
	RE04	76382104	RESISTOR, OXIDE METAL FILM, 1W 100K OHM J
	RE12	76552221	RESISTOR, OXIDE METAL FILM, 1/2W 220 OHM J
	RE13	76366273	RESISTOR, CARBON FILM, 1/6W 27K OHM J
	RE15	76366102	RESISTOR, CARBON FILM, 1/6W 1K OHM J
	RE16	76366102	RESISTOR, CARBON FILM, 1/6W 1K OHM J
	RE17	76366363	RESISTOR, CARBON FILM, 1/6W 36K OHM J
	RE18	76079010	RESISTOR, METAL FILM, 2W 0.47 OHM J
	RE19	76310829	RESISTOR, METAL FILM, 1/2W 8.2 OHM J
	RE23	76552152	RESISTOR, OXIDE METAL FILM, 1/2W 1.5K OHM J
	RE38	76871222	RESISTOR, CHIP, 1/8W 2.2K OHM J
	RE39	76011152	RESISTOR, CHIP, 1/20W 1.5K OHM J
	RE43	76011753	RESISTOR, CHIP, 1/20W 75K OHM J
	RE44	76000593	RESISTOR, CHIP, 1/16W 10K OHM F
	RE46	76000448	RESISTOR, CHIP, 1/16W 1.8K OHM F
	RE48	76011222	RESISTOR, CHIP, 1/20W 2.2K OHM J
⚠	SR81	23146597	RELAY, DC5V 0.25W, DG5D1-O(M)-2
⚠	T801	23211886	COIL, LINE FILTER, TRF3253AH
⚠	T802	23211886	COIL, LINE FILTER, TRF3253AH
⚠	T862	75003049	TRANSFORMER, ST-3210
⚠	TE62	23217841	TRANSFORMER, CONVERTER, TPW3586AD
	Z889	23144195	PROTECTOR, 20PSERIES 125V 5A
	ZE72	23144185	PROTECTOR, 20PSERIES, 125V 1A
	ZE75	23144195	PROTECTOR, 20PSERIES 125V 5A

U04B LOWB (PE0197)

	Location	Parts No.	Description
✱	U04B	75004432	PC BOARD ASSY, PE0197B2, LOW_B
	C851	76092538	CAPACITOR, CERAMIC CHIP, 10V F 1UF Z
	C852	76109102	CAPACITOR, CERAMIC CHIP, 50V B 1000PF K
	C860	76668101	CAPACITOR, ELECTROLYTIC, 35V 100UF M
	CE40	76073183	CAPACITOR, ELECTROLYTIC, 35V 220UF M
	CE42	76539104	CAPACITOR, PLASTIC FILM, 50V 0.1UF J
	CE47	76092859	CAPACITOR, CERAMIC CHIP, 10V B 1UF K
	CE49	76109223	CAPACITOR, CERAMIC CHIP, 25V B 0.022UF K
	CE51	76617023	CAPACITOR, ELECTROLYTIC, 16V 330UF M
	CE52	76092179	CAPACITOR, CERAMIC CHIP, 25V B 0.22UF K
	CE53	76092179	CAPACITOR, CERAMIC CHIP, 25V B 0.22UF K
	CE55	76073181	CAPACITOR, ELECTROLYTIC, 35V 56UF M
	CE87	76669100	CAPACITOR, ELECTROLYTIC, 50V 10UF M
	CE90	76567334	CAPACITOR, PLASTIC FILM, 50V 0.33UF J
	CE91	76567104	CAPACITOR, PLASTIC FILM, 50V 0.1UF J
	CE92	76794101	CAPACITOR, ELECTROLYTIC, 16V 100UF M
	CE95	76092179	CAPACITOR, CERAMIC CHIP, 25V B 0.22UF K
	CE96	76073189	CAPACITOR, ELECTROLYTIC, 35V 1000UF M
	D860	23357515	DIODE, RK34
	D861	23357866	DIODE, ZENER, MTZJ12C
	D862	23357866	DIODE, ZENER, MTZJ12C
	D863	23357703	DIODE, 1SS355
	DE48	23357848	DIODE, ZENER, MTZJ8.2B
	DE49	23357842	DIODE, ZENER, MTZJ6.8B
	DE50	23357706	DIODE, AK04
	DE51	23357842	DIODE, ZENER, MTZJ6.8B
	DE52	23357703	DIODE, 1SS355
	DE54	23357703	DIODE, 1SS355
	DE55	23357783	DIODE, ZENER, MA8180-L, TX
	DE56	23357800	DIODE, ZENER, MA8300-H
	DE57	23357842	DIODE, ZENER, MTZJ6.8B
	DE58	23357842	DIODE, ZENER, MTZJ6.8B
	DE90	23357866	DIODE, ZENER, MTZJ12C
	DE92	23357855	DIODE, ZENER, MTZJ10C
	DE93	23357862	DIODE, ZENER, MTZJ11B
	DE94	23357862	DIODE, ZENER, MTZJ11B
	GE50	23103304	FERRITE CHOKE, TEM2011AA
	GE51	76000445	CHIP JUMPER, 1608TYPE
	LE52	23289049	COIL, PEAKING, TRF4330AU

	LE53	23248399	COIL, CHOKE, TLN3283D
	LE73	23248417	COIL, CHOKE, TLN3481AH
	P803A	23713818	SOCKET, TWG-P19X-A1
	P806A	23713817	SOCKET, 127301115K2
	P810A	23713817	SOCKET, 127301115K2
	PG02	23165495	EARTH TERMINAL, MET31-0332
	PJ50B	23713940	CONNECTOR, B8B-PH-K-S(LF)
	Q853	23205443	TRANSISTOR, 2SA1162-Y(F)
	Q854	23205446	TRANSISTOR, 2SC2412K, Q T146
	Q855	23205446	TRANSISTOR, 2SC2412K, Q T146
	Q856	23205327	TRANSISTOR, RN1406(F)
	Q860	23205292	TRANSISTOR, 2SD2396
	Q860B	23717240	SCREW, BITTB3X10SZN
	QE40	75003051	IC, SI-8050W-TL
	QE47	75001881	IC, CE-1059
	QE48	23085338	IC, BD5245G-TR
	QE49	23205446	TRANSISTOR, 2SC2412K, Q T146
	QE50	23205446	TRANSISTOR, 2SC2412K, Q T146
	QE52	23205567	TRANSISTOR, RN2403(TE85L, F)
	QE53	23205330	TRANSISTOR, RN1403(F)
	QE64	23085415	IC, BD4746G
	QE71	75001881	IC, CE-1059
	QE73	23205330	TRANSISTOR, RN1403(F)
	QE74	23205330	TRANSISTOR, RN1403(F)
	QE76	75001881	IC, CE-1059
	QE77	75001881	IC, CE-1059
	QE82	23205446	TRANSISTOR, 2SC2412K, Q T146
	QE90	23085423	IC, KIA7809API-U/P
	QE90B	23717240	SCREW, BITTB3X10SZN
	QE95	23205330	TRANSISTOR, RN1403(F)
	QE96	75001876	TRANSISTOR, TPC8111(TE12L, Q)
	QE97	23205569	TRANSISTOR, 2SC2713-GR(TE85L, F
	QE98	23205568	TRANSISTOR, 2SA1163-GR(TE85L, F
	R850	76011101	RESISTOR, CHIP, 1/20W 100 OHM J
	R851	76011471	RESISTOR, CHIP, 1/20W 470 OHM J
	R852	76011471	RESISTOR, CHIP, 1/20W 470 OHM J
	R855	76011471	RESISTOR, CHIP, 1/20W 470 OHM J
	R856	76011471	RESISTOR, CHIP, 1/20W 470 OHM J
	R857	76011471	RESISTOR, CHIP, 1/20W 470 OHM J
	R858	76011471	RESISTOR, CHIP, 1/20W 470 OHM J
	R859	76011102	RESISTOR, CHIP, 1/20W 1K OHM J

	R862	76552391	RESISTOR, OXIDE METAL FILM, 1/2W 390 OHM J
	R863	76011103	RESISTOR, CHIP, 1/20W 10K OHM J
	R865	76553152	RESISTOR, OXIDE METAL FILM, 1W 1.5K OHM J
	RE24	76011682	RESISTOR, CHIP, 1/20W 6.8K OHM J
	RE25	76011471	RESISTOR, CHIP, 1/20W 470 OHM J
	RE26	76011223	RESISTOR, CHIP, 1/20W 22K OHM J
	RE31	76011473	RESISTOR, CHIP, 1/20W 47K OHM J
	RE32	76011223	RESISTOR, CHIP, 1/20W 22K OHM J
	RE33	76011473	RESISTOR, CHIP, 1/20W 47K OHM J
	RE34	76011104	RESISTOR, CHIP, 1/20W 100K OHM J
	RE51	76000445	CHIP JUMPER, 1608TYPE
	RE52	76011151	RESISTOR, CHIP, 1/20W 150 OHM J
	RE53	76871222	RESISTOR, CHIP, 1/8W 2.2K OHM J
	RE54	76871222	RESISTOR, CHIP, 1/8W 2.2K OHM J
	RE56	76000574	RESISTOR, CHIP, 1/16W 2.7K OHM F
	RE57	76000552	RESISTOR, CHIP, 1/16W 390 OHM F
	RE58	76190013	RESISTOR, CHIP, 1/16W 22K OHM F
	RE59	76011333	RESISTOR, CHIP, 1/20W 33K OHM J
	RE60	76011562	RESISTOR, CHIP, 1/20W 5.6K OHM J
	RE61	76190014	RESISTOR, CHIP, 1/16W 18K OHM F
	RE63	76011473	RESISTOR, CHIP, 1/20W 47K OHM J
	RE64	76011682	RESISTOR, CHIP, 1/20W 6.8K OHM J
	RE82	76011473	RESISTOR, CHIP, 1/20W 47K OHM J
	RE83	76011473	RESISTOR, CHIP, 1/20W 47K OHM J
	RE88	76011222	RESISTOR, CHIP, 1/20W 2.2K OHM J
	RE91	76011103	RESISTOR, CHIP, 1/20W 10K OHM J
	RE93	76011223	RESISTOR, CHIP, 1/20W 22K OHM J
	RE95	76553122	RESISTOR, OXIDE METAL FILM, 1W 1.2K OHM J
	RE96	76011473	RESISTOR, CHIP, 1/20W 47K OHM J
	RE97	76011562	RESISTOR, CHIP, 1/20W 5.6K OHM J
	RE98	76011104	RESISTOR, CHIP, 1/20W 100K OHM J
	Z860	23144189	PROTECTOR, 20PSERIES 125V 2A

Miscellaneous

	Location	Parts No.	Description
⚠	B001	75004344	LCD PANEL, G6AUO37V1, T370XW02 V1
	H001	23321543	TUNER, ENG37A13GF
⚠	P801	23372353	POWER CORD, UK 250V3A FL/FUSE13
⚠	P801	23372298	POWER CORD, 250V2.5A
	PJ22B	75002683	CONNECTOR, 1MM PITCH B TO B, 237702150K4
	PP21	23974994	BAND, KESSOKU
	PP661	23974994	BAND, KESSOKU
	W661	23351321	SPEAKER ASSY, SPK1469AO, 6X12+TW 8-OHM 10
	ZA01	23103914	FERRITE CORE, TFE1015AD

Accessory

	Location	Parts No.	Description
⚠	Y101	75004407	OWNERS MANUAL, ENGLISH
⚠	Y101E	75004409	OWNERS MANUAL, EURO
	Y110	75004408	OWNERS MANUAL, QSUG
	Y114	75004343	SCHEMATIC DIAGRAM
	Y130	75001967	REMOCON HAND UNIT, CT-865
	Y170	23845800	HOLDER, WIRE, NYLON66 D6.8

Cabinet

	Location	Parts No.	Description
	A201	75004913	CABINET/RACK FRONT BEZEL ASSY, FRONT BEZEL ASSY
	A330	75004347	PIECE, AC HOLDER
	A340	75004348	PIECE, CONTROL S ASSY
	A375	23717240	SCREW, BITTB3X10SZN
	A380	23717240	SCREW, BITTB3X10SZN
⚠	A401	75004346	BACK COVER ASSY
	A410	23717219	SCREW, PP3X8+SW+W SBN
	A411	23717267	SCREW, BITTB4X16 SBN
	A412	23717214	SCREW, BITTB3X12SBN
	A420	75004349	STAND ASSY
	A430	75001924	CLAMP
	A440	23738074	SCREW, PP 5X16 SW+W SBN

Packing

	Location	Parts No.	Description
	A701	75004350	CARTON BOX, TOP
	A701B	75004351	CARTON BOX, BOTTOM
	A702A	75004352	TOP PAD
	A702B	75004353	BOTTOM PAD
	A705	23518043	PACKING, JOINT
	A709	75004334	CENTER PAD

Loading ...

	Location	Parts No.	Description
*	U01AS	75003795	PC BOARD ASSY, PE0194A1, SIGNAL
	C311	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C312	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C313	V03GD0000559	CHIP CERAMIC CAPACITOR (1608)
	C360	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C361	V03GD0001318	CHIP CERAMIC CAPACITOR (2012)
	C362	V03GD0001318	CHIP CERAMIC CAPACITOR (2012)
	C370	V03GD0000741	CHIP CERAMIC CAPACITOR (3216)
	C371	V03GD0000741	CHIP CERAMIC CAPACITOR (3216)
	C372	V03GD0000578	CHIP CERAMIC CAPACITOR (1608)
	C373	V03GD0000741	CHIP CERAMIC CAPACITOR (3216)
	C374	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C375	V03GD0000578	CHIP CERAMIC CAPACITOR (1608)
	C376	V03GD0000541	CHIP CERAMIC CAPACITOR (1608)
	C377	V03GD0000541	CHIP CERAMIC CAPACITOR (1608)
	C378	V03GD0000741	CHIP CERAMIC CAPACITOR (3216)
	C379	V03GD0000741	CHIP CERAMIC CAPACITOR (3216)
	C384	V03GD0000719	CHIP CERAMIC CAPACITOR (1608)
	C385	V03GD0001137	CHIP CERAMIC CAPACITOR (1608)
	C386	V03GD0000826	CHIP CERAMIC CAPACITOR (1608)
	C387	V03GD0000719	CHIP CERAMIC CAPACITOR (1608)
	C388	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
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	C406	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C408	V03GD0000708	CHIP CERAMIC CAPACITOR (1608)
	C410	V03GD0001318	CHIP CERAMIC CAPACITOR (2012)
	C411	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)

	C427	V03GD0001318	CHIP CERAMIC CAPACITOR (2012)
	C428	V03GD0001144	CHIP CERAMIC CAPACITOR (1608)
	C429	V03GD0001318	CHIP CERAMIC CAPACITOR (2012)
	C430	V13GD0000338	CHIP THREE TERMINAL CAPACITOR
	C431	V03GD0001318	CHIP CERAMIC CAPACITOR (2012)
	C432	V03GD0001144	CHIP CERAMIC CAPACITOR (1608)
	C433	V03GD0001144	CHIP CERAMIC CAPACITOR (1608)
	C434	V03GD0001318	CHIP CERAMIC CAPACITOR (2012)
	C435	V03GD0000591	CHIP CERAMIC CAPACITOR (1608)
	C436	V03GD0000568	CHIP CERAMIC CAPACITOR (1608)
	C437	V03GD0000591	CHIP CERAMIC CAPACITOR (1608)
	C438	V03GD0001318	CHIP CERAMIC CAPACITOR (2012)
	C439	V03GD0001318	CHIP CERAMIC CAPACITOR (2012)
	C440	V03GD0001318	CHIP CERAMIC CAPACITOR (2012)
	C441	V03GD0001131	CHIP CERAMIC CAPACITOR (2012)
	C442	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C444	V03A000004Q0	CAPACITOR CHIP CERA 25V 104S 3
	C451	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C453	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
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	C459	V03GD0001131	CHIP CERAMIC CAPACITOR (2012)
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	C462	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
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	C951	V03GD0001192	CHIP CERAMIC CAPACITOR (1005)
	C953	V03GD0001126	CHIP CERAMIC CAPACITOR (1608)
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	C5012	V03GD0000719	CHIP CERAMIC CAPACITOR (1608)
	C5013	V03GD0001092	CHIP ALUMINUM ELECTROLYTIC CAP
	C5014	V03GD0000538	CHIP CERAMIC CAPACITOR (1608)
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	C5035	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C5036	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C5037	V03GD0000538	CHIP CERAMIC CAPACITOR (1608)
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	C5039	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C5040	V03GD0000538	CHIP CERAMIC CAPACITOR (1608)
	C5041	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C5042	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C5043	V03GD0000719	CHIP CERAMIC CAPACITOR (1608)
	C5044	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C5045	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)

	C5046	V03GD0000719	CHIP CERAMIC CAPACITOR (1608)
	C5047	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C5048	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C5049	V03GD0000719	CHIP CERAMIC CAPACITOR (1608)
	C5050	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C5051	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C5052	V03GD0000719	CHIP CERAMIC CAPACITOR (1608)
	C5053	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C5054	V03GD0001090	CHIP ALUMINUM ELECTROLYTIC CAP
	C5055	V03GD0000582	CHIP CERAMIC CAPACITOR (1608)
	C5056	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C5057	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C5058	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C5059	V03GD0000582	CHIP CERAMIC CAPACITOR (1608)
	C5060	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
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	C5062	V03GD0000538	CHIP CERAMIC CAPACITOR (1608)
	C5063	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
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	C5067	V03GD0000538	CHIP CERAMIC CAPACITOR (1608)
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	C5098	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
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	C5111	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
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	C5118	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C5119	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C5120	V03GD0001092	CHIP ALUMINUM ELECTROLYTIC CAP
	C5121	V03GD0001092	CHIP ALUMINUM ELECTROLYTIC CAP
	C5122	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C5123	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C5124	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C5125	V03GD0000538	CHIP CERAMIC CAPACITOR (1608)
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	C5143	V03GD0000719	CHIP CERAMIC CAPACITOR (1608)
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	C5145	V03GD0000538	CHIP CERAMIC CAPACITOR (1608)
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	C5150	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
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	C5164	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
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	C5172	V03GD0000540	CHIP CERAMIC CAPACITOR (1608)
	C5173	V03GD0000540	CHIP CERAMIC CAPACITOR (1608)
	C5174	V03GD0000538	CHIP CERAMIC CAPACITOR (1608)
	C5175	V03GD0000765	CHIP CERAMIC CAPACITOR (1005)
	C5176	V03GD0001090	CHIP ALUMINUM ELECTROLYTIC CAP
	C5177	V03GD0000786	CHIP CERAMIC CAPACITOR (1005)
	C5178	V03GD0000786	CHIP CERAMIC CAPACITOR (1005)
	C5179	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
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	C5212	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)

	C5213	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C5214	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)
	C5215	V03GD0000572	CHIP CERAMIC CAPACITOR (1608)

Loading ...

	Location	Parts No.	Description
*	U02A	75004438	PC BOARD ASSY, PE0195A1, AV_TERMINAL
	C101	76109103	CAPACITOR, CERAMIC CHIP, 50V B 0.01UF K
	C102	76762471	CAPACITOR, ELECTROLYTIC, 10V 470UF M
	C103	76109102	CAPACITOR, CERAMIC CHIP, 50V B 1000PF K
	C104	76766479	CAPACITOR, ELECTROLYTIC, 50V 4.7UF M
	C105	76762471	CAPACITOR, ELECTROLYTIC, 10V 470UF M
	C114	76105270	CAPACITOR, CERAMIC CHIP, 50V CH 27PF J
	C115	76105270	CAPACITOR, CERAMIC CHIP, 50V CH 27PF J
	C162	76105101	CAPACITOR, CERAMIC CHIP, 50V CH 100PF J
	C164	76100103	CAPACITOR, CERAMIC CHIP, 50V F 0.01UF Z
	C190	76092730	CAPACITOR, CERAMIC CHIP, 16V B 0.1UF K
	C414	76794470	CAPACITOR, ELECTROLYTIC, 16V 47UF M
	C415	76100104	CAPACITOR, CERAMIC CHIP, 25V F 0.1UF Z
	C416	76092731	CAPACITOR, CERAMIC CHIP, 16V B 1UF K
	C417	76109221	CAPACITOR, CERAMIC CHIP, 50V B 220PF K
	C419	76109222	CAPACITOR, CERAMIC CHIP, 50V B 2200PF K
	C457	76092731	CAPACITOR, CERAMIC CHIP, 16V B 1UF K
	C458	76100104	CAPACITOR, CERAMIC CHIP, 25V F 0.1UF Z
	C459	76105220	CAPACITOR, CERAMIC CHIP, 50V CH 22PF J
	C460	76109221	CAPACITOR, CERAMIC CHIP, 50V B 220PF K
	C461	76109152	CAPACITOR, CERAMIC CHIP, 50V B 1500PF K
	C462	76109222	CAPACITOR, CERAMIC CHIP, 50V B 2200PF K
	C463	76092730	CAPACITOR, CERAMIC CHIP, 16V B 0.1UF K
	C465	76109152	CAPACITOR, CERAMIC CHIP, 50V B 1500PF K
	C616	76669229	CAPACITOR, ELECTROLYTIC, 50V 2.2UF M
	C617	76109473	CAPACITOR, CERAMIC CHIP, 25V B 0.047UF K
	C618	76669479	CAPACITOR, ELECTROLYTIC, 50V 4.7UF M
	C619	76669479	CAPACITOR, ELECTROLYTIC, 50V 4.7UF M
	C620	76092883	CAPACITOR, CERAMIC CHIP, 50V B 0.1UF K
	C621	76092883	CAPACITOR, CERAMIC CHIP, 50V B 0.1UF K
	C622	76285104	CAPACITOR, CERAMIC CHIP, 50V B 0.1UF K
	C623	76285104	CAPACITOR, CERAMIC CHIP, 50V B 0.1UF K
	C624	76073072	CAPACITOR, ELECTROLYTIC, 35V 1000UF M
	C625	76073072	CAPACITOR, ELECTROLYTIC, 35V 1000UF M
	C626	76105030	CAPACITOR, CERAMIC CHIP, 50V CJ 3PF C
	C627	76105030	CAPACITOR, CERAMIC CHIP, 50V CJ 3PF C
	C628	76092796	CAPACITOR, CERAMIC CHIP, 50V B 0.22UF K
	C629	76092796	CAPACITOR, CERAMIC CHIP, 50V B 0.22UF K
	C635	76109473	CAPACITOR, CERAMIC CHIP, 25V B 0.047UF K

	C636	76667100	CAPACITOR, ELECTROLYTIC, 25V 10UF M
	C640	76073073	CAPACITOR, ELECTROLYTIC, 35V 2200UF M
	C641	76073073	CAPACITOR, ELECTROLYTIC, 35V 2200UF M
	C642	76092883	CAPACITOR, CERAMIC CHIP, 50V B 0.1UF K
	C645	76109103	CAPACITOR, CERAMIC CHIP, 50V B 0.01UF K
	C665	76092731	CAPACITOR, CERAMIC CHIP, 16V B 1UF K
	C666	76092731	CAPACITOR, CERAMIC CHIP, 16V B 1UF K
	C667	76092515	CAPACITOR, CERAMIC CHIP, 16V F 4.7UF Z
	C668	76665470	CAPACITOR, ELECTROLYTIC, 10V 47UF M
	C669	76092515	CAPACITOR, CERAMIC CHIP, 16V F 4.7UF Z
	C672	76092542	CAPACITOR, CERAMIC CHIP, 16V B 1UF K
	C673	76092542	CAPACITOR, CERAMIC CHIP, 16V B 1UF K
	C674	76109102	CAPACITOR, CERAMIC CHIP, 50V B 1000PF K
	C675	76109222	CAPACITOR, CERAMIC CHIP, 50V B 2200PF K
	C676	76109222	CAPACITOR, CERAMIC CHIP, 50V B 2200PF K
	C677	76092883	CAPACITOR, CERAMIC CHIP, 50V B 0.1UF K
	C685	76669010	CAPACITOR, ELECTROLYTIC, 50V 1UF M
	C686	76092463	CAPACITOR, CERAMIC CHIP, 16V B 0.22UF K
	C690	76664102	CAPACITOR, ELECTROLYTIC, 6.3V 1000UF M
	C691	76665331	CAPACITOR, ELECTROLYTIC, 10V 330UF M
	C692	76665331	CAPACITOR, ELECTROLYTIC, 10V 330UF M
	C695	76666100	CAPACITOR, ELECTROLYTIC, 16V 10UF M
	C696	76092883	CAPACITOR, CERAMIC CHIP, 50V B 0.1UF K
	C697	76092883	CAPACITOR, CERAMIC CHIP, 50V B 0.1UF K
	C4073	76105220	CAPACITOR, CERAMIC CHIP, 50V CH 22PF J
	CA01	76092538	CAPACITOR, CERAMIC CHIP, 10V F 1UF Z
	CA02	76105101	CAPACITOR, CERAMIC CHIP, 50V CH 100PF J
	CA06	76105100	CAPACITOR, CERAMIC CHIP, 50V CH 10PF D
	CA07	76105090	CAPACITOR, CERAMIC CHIP, 50V CH 9PF C
	CA19	76092538	CAPACITOR, CERAMIC CHIP, 10V F 1UF Z
	CA70	76100104	CAPACITOR, CERAMIC CHIP, 25V F 0.1UF Z
	CA71	76100104	CAPACITOR, CERAMIC CHIP, 25V F 0.1UF Z
	CA90	76100104	CAPACITOR, CERAMIC CHIP, 25V F 0.1UF Z
	CA91	76105101	CAPACITOR, CERAMIC CHIP, 50V CH 100PF J
	CA92	76105101	CAPACITOR, CERAMIC CHIP, 50V CH 100PF J
	CA93	76105101	CAPACITOR, CERAMIC CHIP, 50V CH 100PF J
	CA94	76105101	CAPACITOR, CERAMIC CHIP, 50V CH 100PF J
	CC01	76109102	CAPACITOR, CERAMIC CHIP, 50V B 1000PF K
	CC02	76109102	CAPACITOR, CERAMIC CHIP, 50V B 1000PF K
	CC03	76109152	CAPACITOR, CERAMIC CHIP, 50V B 1500PF K
	CC04	76109152	CAPACITOR, CERAMIC CHIP, 50V B 1500PF K

	CC05	76109102	CAPACITOR, CERAMIC CHIP, 50V B 1000PF K
	CC06	76109102	CAPACITOR, CERAMIC CHIP, 50V B 1000PF K
	CC07	76109152	CAPACITOR, CERAMIC CHIP, 50V B 1500PF K
	CC08	76109152	CAPACITOR, CERAMIC CHIP, 50V B 1500PF K
	CC32	76105100	CAPACITOR, CERAMIC CHIP, 50V CH 10PF D
	CC90	76212103	CAPACITOR, CERAMIC DISC, 50V B 0.01UF K
	CC91	76212103	CAPACITOR, CERAMIC DISC, 50V B 0.01UF K
	CG01	76794100	CAPACITOR, ELECTROLYTIC, 16V 10UF M
	CG02	76109152	CAPACITOR, CERAMIC CHIP, 50V B 1500PF K
	CG03	76109471	CAPACITOR, CERAMIC CHIP, 50V B 470PF K
	CG04	76109221	CAPACITOR, CERAMIC CHIP, 50V B 220PF K
	CG05	76092730	CAPACITOR, CERAMIC CHIP, 16V B 0.1UF K
	CG06	76794100	CAPACITOR, ELECTROLYTIC, 16V 10UF M
	CG07	76794100	CAPACITOR, ELECTROLYTIC, 16V 10UF M
	CG11	76794220	CAPACITOR, ELECTROLYTIC, 16V 22UF M
	CG12	76794220	CAPACITOR, ELECTROLYTIC, 16V 22UF M
	CG13	76794100	CAPACITOR, ELECTROLYTIC, 16V 10UF M
	CG14	76794100	CAPACITOR, ELECTROLYTIC, 16V 10UF M
	CG15	76105101	CAPACITOR, CERAMIC CHIP, 50V CH 100PF J
	CG16	76105101	CAPACITOR, CERAMIC CHIP, 50V CH 100PF J
	CG17	76797470	CAPACITOR, ELECTROLYTIC, 50V 47UF M
	CG20	76794100	CAPACITOR, ELECTROLYTIC, 16V 10UF M
	CG21	76092730	CAPACITOR, CERAMIC CHIP, 16V B 0.1UF K
	CG22	76794100	CAPACITOR, ELECTROLYTIC, 16V 10UF M
	CG23	76109103	CAPACITOR, CERAMIC CHIP, 50V B 0.01UF K
	CG24	76797339	CAPACITOR, ELECTROLYTIO, 50V 3.3UF M
	CG25	76092730	CAPACITOR, CERAMIC CHIP, 16V B 0.1UF K
	CG26	76092726	CAPACITOR, CERAMIC CHIP, 10V B 2.2UF K
	CG27	76092726	CAPACITOR, CERAMIC CHIP, 10V B 2.2UF K
	CG28	76092726	CAPACITOR, CERAMIC CHIP, 10V B 2.2UF K
	CG29	76092726	CAPACITOR, CERAMIC CHIP, 10V B 2.2UF K
	CG30	76092726	CAPACITOR, CERAMIC CHIP, 10V B 2.2UF K
	CG31	76092726	CAPACITOR, CERAMIC CHIP, 10V B 2.2UF K
	CG32	76092726	CAPACITOR, CERAMIC CHIP, 10V B 2.2UF K
	CG33	76092726	CAPACITOR, CERAMIC CHIP, 10V B 2.2UF K
	CG34	76092730	CAPACITOR, CERAMIC CHIP, 16V B 0.1UF K
	CG35	76794100	CAPACITOR, ELECTROLYTIC, 16V 10UF M
	CG36	76794100	CAPACITOR, ELECTROLYTIC, 16V 10UF M
	CG37	76109152	CAPACITOR, CERAMIC CHIP, 50V B 1500PF K
	CG38	76109471	CAPACITOR, CERAMIC CHIP, 50V B 470PF K
	CG39	76105560	CAPACITOR, CERAMIC CHIP, 50V CH 56PF J

	CG40	76105560	CAPACITOR, CERAMIC CHIP, 50V CH 56PF J
	CG41	76105560	CAPACITOR, CERAMIC CHIP, 50V CH 56PF J
	CG42	76105050	CAPACITOR, CERAMIC CHIP, 50V CH 5PF C
	CG43	76105010	CAPACITOR, CERAMIC CHIP, 50V CK 1PF C
	CG44	76109102	CAPACITOR, CERAMIC CHIP, 50V B 1000PF K
	CG45	76109102	CAPACITOR, CERAMIC CHIP, 50V B 1000PF K
	CG46	76109102	CAPACITOR, CERAMIC CHIP, 50V B 1000PF K
	CG47	76794220	CAPACITOR, ELECTROLYTIC, 16V 22UF M
	CG48	76105101	CAPACITOR, CERAMIC CHIP, 50V CH 100PF J
	CG49	76109102	CAPACITOR, CERAMIC CHIP, 50V B 1000PF K
	CG50	76794100	CAPACITOR, ELECTROLYTIC, 16V 10UF M
	CG51	76794100	CAPACITOR, ELECTROLYTIC, 16V 10UF M
	CG52	76105101	CAPACITOR, CERAMIC CHIP, 50V CH 100PF J
	CG53	76105101	CAPACITOR, CERAMIC CHIP, 50V CH 100PF J
	CG54	76109102	CAPACITOR, CERAMIC CHIP, 50V B 1000PF K
	CG55	76109102	CAPACITOR, CERAMIC CHIP, 50V B 1000PF K
	CS01	76092726	CAPACITOR, CERAMIC CHIP, 10V B 2.2UF K
	CS02	76092726	CAPACITOR, CERAMIC CHIP, 10V B 2.2UF K
	CS03	76092726	CAPACITOR, CERAMIC CHIP, 10V B 2.2UF K
	CS04	76797470	CAPACITOR, ELECTROLYTIC, 50V 47UF M
	CS05	76092726	CAPACITOR, CERAMIC CHIP, 10V B 2.2UF K
	CS06	76092726	CAPACITOR, CERAMIC CHIP, 10V B 2.2UF K
	CS07	76092726	CAPACITOR, CERAMIC CHIP, 10V B 2.2UF K
	CS08	76092726	CAPACITOR, CERAMIC CHIP, 10V B 2.2UF K
	CS09	76092726	CAPACITOR, CERAMIC CHIP, 10V B 2.2UF K
	CS10	76092726	CAPACITOR, CERAMIC CHIP, 10V B 2.2UF K
	CS11	76092726	CAPACITOR, CERAMIC CHIP, 10V B 2.2UF K
	CS12	76797479	CAPACITOR, ELECTROLYTIC, 50V 4.7UF M
	CS13	76797479	CAPACITOR, ELECTROLYTIC, 50V 4.7UF M
	CS14	76797100	CAPACITOR, ELECTROLYTIC, 50V 10UF M
	CS15	76797100	CAPACITOR, ELECTROLYTIC, 50V 10UF M
	CS16	76797479	CAPACITOR, ELECTROLYTIC, 50V 4.7UF M
	CS17	76797479	CAPACITOR, ELECTROLYTIC, 50V 4.7UF M
	CS18	76797100	CAPACITOR, ELECTROLYTIC, 50V 10UF M
	CS19	76797100	CAPACITOR, ELECTROLYTIC, 50V 10UF M
	CS20	76073086	CAPACITOR, ELECTROLYTIC, 50V 10UF M
	CS21	76073086	CAPACITOR, ELECTROLYTIC, 50V 10UF M
	CS26	76766100	CAPACITOR, ELECTROLYTIC, 50V 10UF M
	CS27	76766100	CAPACITOR, ELECTROLYTIC, 50V 10UF M
	CS28	76766100	CAPACITOR, ELECTROLYTIC, 50V 10UF M
	CS31	76073086	CAPACITOR, ELECTROLYTIC, 50V 10UF M

	CS32	76092611	CAPACITOR, CERAMIC CHIP, 6.3V B 2.2UF K
	CS33	76092515	CAPACITOR, CERAMIC CHIP, 16V F 4.7UF Z
	CS34	76092731	CAPACITOR, CERAMIC CHIP, 16V B 1UF K
	CS35	76092611	CAPACITOR, CERAMIC CHIP, 6.3V B 2.2UF K
	CS50	76109102	CAPACITOR, CERAMIC CHIP, 50V B 1000PF K
	CS51	76109102	CAPACITOR, CERAMIC CHIP, 50V B 1000PF K
	CS91	76105101	CAPACITOR, CERAMIC CHIP, 50V CH 100PF J
	CS92	76105101	CAPACITOR, CERAMIC CHIP, 50V CH 100PF J
	CT05	76092731	CAPACITOR, CERAMIC CHIP, 16V B 1UF K
	CT06	76092790	CAPACITOR, CERAMIC CHIP, 6.3V B 10UF K
	CT11	76092731	CAPACITOR, CERAMIC CHIP, 16V B 1UF K
	CT12	76092790	CAPACITOR, CERAMIC CHIP, 6.3V B 10UF K
	CT13	76092790	CAPACITOR, CERAMIC CHIP, 6.3V B 10UF K
	CT15	76105330	CAPACITOR, CERAMIC CHIP, 50V CH 33PF J
	CT16	76105151	CAPACITOR, CERAMIC CHIP, 50V CH 150PF J
	CT17	76092731	CAPACITOR, CERAMIC CHIP, 16V B 1UF K
	CT18	76092790	CAPACITOR, CERAMIC CHIP, 6.3V B 10UF K
	CT19	76092790	CAPACITOR, CERAMIC CHIP, 6.3V B 10UF K
	CT20	76092789	CAPACITOR, CERAMIC CHIP, 6.3V B 1UF K
	CV01	76666101	CAPACITOR, ELECTROLYTIC, 16V 100UF M
	CV02	76666101	CAPACITOR, ELECTROLYTIC, 16V 100UF M
	CV03	76092730	CAPACITOR, CERAMIC CHIP, 16V B 0.1UF K
	CV04	76109103	CAPACITOR, CERAMIC CHIP, 50V B 0.01UF K
	CV05	76092730	CAPACITOR, CERAMIC CHIP, 16V B 0.1UF K
	CV06	76092730	CAPACITOR, CERAMIC CHIP, 16V B 0.1UF K
	CV07	76109103	CAPACITOR, CERAMIC CHIP, 50V B 0.01UF K
	CV08	76092730	CAPACITOR, CERAMIC CHIP, 16V B 0.1UF K
	CV09	76092730	CAPACITOR, CERAMIC CHIP, 16V B 0.1UF K
	CV10	76092730	CAPACITOR, CERAMIC CHIP, 16V B 0.1UF K
	CV11	76092730	CAPACITOR, CERAMIC CHIP, 16V B 0.1UF K
	CV12	76092730	CAPACITOR, CERAMIC CHIP, 16V B 0.1UF K
	CV90	76100104	CAPACITOR, CERAMIC CHIP, 25V F 0.1UF Z
	CV201	76794101	CAPACITOR, ELECTROLYTIC, 16V 100UF M
	CV221	76092621	CAPACITOR, CERAMIC CHIP, 10V B 1UF K
	CV222	76092621	CAPACITOR, CERAMIC CHIP, 10V B 1UF K
	CV223	76100104	CAPACITOR, CERAMIC CHIP, 25V F 0.1UF Z
	CV224	76793471	CAPACITOR, ELECTROLYTIC, 10V 470UF M
	CV231	76092621	CAPACITOR, CERAMIC CHIP, 10V B 1UF K
	CV232	76092621	CAPACITOR, CERAMIC CHIP, 10V B 1UF K
	CV233	76100104	CAPACITOR, CERAMIC CHIP, 25V F 0.1UF Z
	CV234	76793471	CAPACITOR, ELECTROLYTIC, 10V 470UF M

	CX07	76794100	CAPACITOR, ELECTROLYTIC, 16V 10UF M
	CX08	76794100	CAPACITOR, ELECTROLYTIC, 16V 10UF M
	CX09	76794100	CAPACITOR, ELECTROLYTIC, 16V 10UF M
	CX11	76105010	CAPACITOR, CERAMIC CHIP, 50V CK 1PF C
	CX12	76105150	CAPACITOR, CERAMIC CHIP, 50V CH 15PF J
	CX13	76105150	CAPACITOR, CERAMIC CHIP, 50V CH 15PF J
	CX21	76105010	CAPACITOR, CERAMIC CHIP, 50V CK 1PF C
	CX22	76105470	CAPACITOR, CERAMIC CHIP, 50V CH 47PF J
	CX23	76105470	CAPACITOR, CERAMIC CHIP, 50V CH 47PF J
	CX31	76105010	CAPACITOR, CERAMIC CHIP, 50V CK 1PF C
	CX32	76105470	CAPACITOR, CERAMIC CHIP, 50V CH 47PF J
	CX33	76105470	CAPACITOR, CERAMIC CHIP, 50V CH 47PF J
	CX41	76105101	CAPACITOR, CERAMIC CHIP, 50V CH 100PF J
	CX42	76105680	CAPACITOR, CERAMIC CHIP, 50V CH 68PF J
	CX43	76105101	CAPACITOR, CERAMIC CHIP, 50V CH 100PF J
	D401	23357703	DIODE, 1SS355
	D623	23362251	DIODE, SDS511(SOD-323)
	D624	23362251	DIODE, SDS511(SOD-323)
	D625	23362251	DIODE, SDS511(SOD-323)
	D626	23362251	DIODE, SDS511(SOD-323)
	D627	23362140	DIODE, KDS160-RTK
	D628	23362140	DIODE, KDS160-RTK
	D670	23362140	DIODE, KDS160-RTK
	D671	23362140	DIODE, KDS160-RTK
	D672	23362140	DIODE, KDS160-RTK
	D673	23362140	DIODE, KDS160-RTK
	D676	23362140	DIODE, KDS160-RTK
	D677	23362140	DIODE, KDS160-RTK
	D678	23362140	DIODE, KDS160-RTK
	D679	23357802	DIODE, ZENER, MA8330-M
	DA02	23357703	DIODE, 1SS355
	DA03	23357730	DIODE, ZENER, MA8033-L
	DA11	23357703	DIODE, 1SS355
	DA15	23357745	DIODE, ZENER, MA8056-M
	DA16	23357745	DIODE, ZENER, MA8056-M
	DA17	23357751	DIODE, ZENER, MA8068-M
	DA18	23357751	DIODE, ZENER, MA8068-M
	DA25	23357745	DIODE, ZENER, MA8056-M
	DG01	23357742	DIODE, ZENER, MA8051-M
	DS01	23362140	DIODE, KDS160-RTK
	DS02	23362140	DIODE, KDS160-RTK

	DS03	23362140	DIODE, KDS160-RTK
	DS04	23362140	DIODE, KDS160-RTK
	DS05	23362140	DIODE, KDS160-RTK
	DS06	23362140	DIODE, KDS160-RTK
	DS07	23362140	DIODE, KDS160-RTK
	DS08	23357744	DIODE, ZENER, MA8056-L
	DV02	23362140	DIODE, KDS160-RTK
	DV03	23362140	DIODE, KDS160-RTK
	DV04	23362140	DIODE, KDS160-RTK
	DV05	23362140	DIODE, KDS160-RTK
	DV06	23357762	DIODE, ZENER, MA8091-M
	DV20	23357745	DIODE, ZENER, MA8056-M
	DV21	23357745	DIODE, ZENER, MA8056-M
	GJ41	76000445	CHIP JUMPER, 1608TYPE
	GJ42	76000445	CHIP JUMPER, 1608TYPE
	GR31	76000445	CHIP JUMPER, 1608TYPE
	GR32	76000445	CHIP JUMPER, 1608TYPE
	GR33	76000445	CHIP JUMPER, 1608TYPE
	GR35	76000445	CHIP JUMPER, 1608TYPE
	GR36	76000445	CHIP JUMPER, 1608TYPE
	GR37	76000445	CHIP JUMPER, 1608TYPE
	GR603	76000445	CHIP JUMPER, 1608TYPE
	GT03	76000445	CHIP JUMPER, 1608TYPE
	L101	23248385	COIL, CHOKE, TLN3278AA
	L102	76000445	CHIP JUMPER, 1608TYPE
	L103	76000445	CHIP JUMPER, 1608TYPE
	L104	76000445	CHIP JUMPER, 1608TYPE
	L191	23103233	INDUCTOR, BEAD, TEM2137AD
	L414	23289985	COIL, PEAKING, TRF4100AF
	L620	75004060	COIL, CHOKE, 7X7 15MMH M 2.1A, SLF7055T-150M2R1-3PF
	L621	75004060	COIL, CHOKE, 7X7 15MMH M 2.1A, SLF7055T-150M2R1-3PF
	LA90	23103230	BEAD INDUCTOR, TEM2134AD
	LA91	23103230	BEAD INDUCTOR, TEM2134AD
	LA92	23103230	BEAD INDUCTOR, TEM2134AD
	LA93	23103230	BEAD INDUCTOR, TEM2134AD
	LA94	23103230	BEAD INDUCTOR, TEM2134AD
	LC01	23103828	BEAD INDUCTOR, TEM2121M
	LC02	23103828	BEAD INDUCTOR, TEM2121M
	LC05	23103828	BEAD INDUCTOR, TEM2121M
	LC06	23103828	BEAD INDUCTOR, TEM2121M
	LG01	23103825	BEAD INDUCTOR, TEM2118M

	LG02	23103825	BEAD INDUCTOR, TEM2118M
	LT03	23289992	COIL, PEAKING, TRF4151AF
	LV01	23289043	COIL, PEAKING, TRF4100AU
	LV202	23103314	COIL, FILTER, TEM2028AH
	LX11	23246639	COIL, CHIP, TRF4R47CG
	LX21	23246639	COIL, CHIP, TRF4R47CG
	LX31	23246639	COIL, CHIP, TRF4R47CG
	LX41	23246646	COIL, CHIP, TRF42R2CG
	P601	23713755	PLUG, 4P 2.5MM G, B4B-EH-F1-TV4
	P810B	23023385	PLUG, TWG-P15P-A1
	PH01	75001989	CONNECTOR, MULTI 21P, CSS5021-9C01F
	PH02	75001989	CONNECTOR, MULTI 21P, CSS5021-9C01F
	PJ22A	75001960	CONNECTOR, 1MM PITCH B TO B, 137701150W3
	PJ42A	23713939	CONNECTOR, B6B-PH-K-S(LF)
	PL212	23713938	CONNECTOR, B5B-PH-K-S(LF)
	PV01	75004443	JACK PIN, **P+**S, LAP5000-2207F
	PV25B	75004437	CONNECTOR, B20B-CZHK-B-1(LF)(SN)(V)
	PV90	23713710	SOCKET, D-SUB 15P, KRD-8622
	Q101	23205347	TRANSISTOR, KTC4075Y/P
	Q400	23205276	TRANSISTOR, 2SA1586Y(TE85L, F)
	Q401	23205276	TRANSISTOR, 2SA1586Y(TE85L, F)
	Q402	23205506	TRANSISTOR, 2SC4081 Q
	Q407	23205276	TRANSISTOR, 2SA1586Y(TE85L, F)
	Q408	23205276	TRANSISTOR, 2SA1586Y(TE85L, F)
	Q409	23205506	TRANSISTOR, 2SC4081 Q
	Q410	23205506	TRANSISTOR, 2SC4081 Q
	Q610	75004075	IC, R2A15106NP#U00T
	Q630	75004445	IC, BH3544F-E2
	Q660	23205506	TRANSISTOR, 2SC4081 Q
	Q661	23205506	TRANSISTOR, 2SC4081 Q
	Q662	23205325	TRANSISTOR, RN2404(F)
	Q663	23205506	TRANSISTOR, 2SC4081 Q
	Q671	23205277	TRANSISTOR, 2SC4116-Y(TE85L, F)
	Q672	23205277	TRANSISTOR, 2SC4116-Y(TE85L, F)
	Q673	23205443	TRANSISTOR, 2SA1162-Y(F)
	Q675	23205277	TRANSISTOR, 2SC4116-Y(TE85L, F)
	Q682	23205325	TRANSISTOR, RN2404(F)
	Q4100	23085635	TRANSISTOR, 2SC3437-Y(TE85L, F)
	Q4101	23085635	TRANSISTOR, 2SC3437-Y(TE85L, F)
	Q4102	23085635	TRANSISTOR, 2SC3437-Y(TE85L, F)
	Q4103	23085635	TRANSISTOR, 2SC3437-Y(TE85L, F)

	QA01	75001884	IC, T5CB5-6G52(F, JZ)
	QA03	75001878	IC, TC7SH126FU(TE85L, F)
	QA72	23205347	TRANSISTOR, KTC4075Y/P
	QA73	23205347	TRANSISTOR, KTC4075Y/P
	QG01	23009672	IC, MSP3410GQI-C12-100
	QG02	23085415	IC, BD4746G
	QG03	23205329	TRANSISTOR, RN1404(F)
	QG04	23205463	TRANSISTOR, 2SC2712-Y(TE85L, F)
	QG05	75004074	IC, BA4558RF-E2
	QG06	75004074	IC, BA4558RF-E2
	QG07	75004074	IC, BA4558RF-E2
	QS01	23009613	IC, CD4052BNSR
	QS04	23205329	TRANSISTOR, RN1404(F)
	QS05	23205329	TRANSISTOR, RN1404(F)
	QS06	23205277	TRANSISTOR, 2SC4116-Y(TE85L, F)
	QS07	23205277	TRANSISTOR, 2SC4116-Y(TE85L, F)
	QS08	23205277	TRANSISTOR, 2SC4116-Y(TE85L, F)
	QS09	23205277	TRANSISTOR, 2SC4116-Y(TE85L, F)
	QS10	23205302	TRANSISTOR, 2SC3326-B(F)
	QS11	23205325	TRANSISTOR, RN2404(F)
	QS12	23205325	TRANSISTOR, RN2404(F)
	QS13	23205302	TRANSISTOR, 2SC3326-B(F)
	QS14	23205302	TRANSISTOR, 2SC3326-B(F)
	QS15	23205325	TRANSISTOR, RN2404(F)
	QS16	23205302	TRANSISTOR, 2SC3326-B(F)
	QS17	23205302	TRANSISTOR, 2SC3326-B(F)
	QS18	23205506	TRANSISTOR, 2SC4081 Q
	QS24	23205302	TRANSISTOR, 2SC3326-B(F)
	QS25	23205302	TRANSISTOR, 2SC3326-B(F)
	QS26	23205325	TRANSISTOR, RN2404(F)
	QS27	75004074	IC, BA4558RF-E2
	QS30	23205302	TRANSISTOR, 2SC3326-B(F)
	QS31	23205302	TRANSISTOR, 2SC3326-B(F)
	QS32	23205302	TRANSISTOR, 2SC3326-B(F)
	QS33	23205302	TRANSISTOR, 2SC3326-B(F)
	QS34	23205302	TRANSISTOR, 2SC3326-B(F)
	QT07	23205507	TRANSISTOR, 2SA1576A Q
	QT08	23205506	TRANSISTOR, 2SC4081 Q
	QT09	23205507	TRANSISTOR, 2SA1576A Q
	QT10	23085758	IC, BA7649AF
	QT11	23205402	TRANSISTOR, DTC144EUA

	QT12	23205402	TRANSISTOR, DTC144EUA
	QV01	75004444	IC, MM1492BJBE
	QV17	23085823	IC, MM1508XNRE
	QV18	23085823	IC, MM1508XNRE
	QV21	23205443	TRANSISTOR, 2SA1162-Y(F)
	QV22	23085635	TRANSISTOR, 2SC3437-Y(TE85L, F)
	QV23	23085635	TRANSISTOR, 2SC3437-Y(TE85L, F)
	QV24	23205506	TRANSISTOR, 2SC4081 Q
	QV25	23205329	TRANSISTOR, RN1404(F)
	QV26	23205329	TRANSISTOR, RN1404(F)
	QV30	23205507	TRANSISTOR, 2SA1576A Q
	QV31	23205329	TRANSISTOR, RN1404(F)
	QV32	23205507	TRANSISTOR, 2SA1576A Q
	QV33	23205329	TRANSISTOR, RN1404(F)
	QX11	23205507	TRANSISTOR, 2SA1576A Q
	QX12	23205506	TRANSISTOR, 2SC4081 Q
	QX21	23205507	TRANSISTOR, 2SA1576A Q
	QX22	23205506	TRANSISTOR, 2SC4081 Q
	QX31	23205507	TRANSISTOR, 2SA1576A Q
	QX32	23205506	TRANSISTOR, 2SC4081 Q

U02B LED (PE0195)

	Location	Parts No.	Description
✱	U02B	75004439	PC BOARD ASSY, PE0195A2, LED
	CB02	76202221	CAPACITOR, ELECTROLYTIC, 10V 220UF M
	CB03	76100104	CAPACITOR, CERAMIC CHIP, 25V F 0.1UF Z
	CB04	76100104	CAPACITOR, CERAMIC CHIP, 25V F 0.1UF Z
	CB05	76202221	CAPACITOR, ELECTROLYTIC, 10V 220UF M
	DB01	23358602	DIODE, LED RED-GRN, SPR-54MVWFLMN
	DB04	23358602	DIODE, LED RED-GRN, SPR-54MVWFLMN
	DB20	23357406	DIODE, ZENER, UDZS5.6B
	DB22	23362251	DIODE, SDS511(SOD-323)
	DB23	23362251	DIODE, SDS511(SOD-323)
	KB01	75002389	IC, GP1UE281RKVF
	PA01B	23713949	CONNECTOR, S7B-PH-K-S(LF)
	QB01	23205347	TRANSISTOR, KTC4075Y/P
	QB02	23205347	TRANSISTOR, KTC4075Y/P
	QB03	23205347	TRANSISTOR, KTC4075Y/P
	QB04	23205347	TRANSISTOR, KTC4075Y/P
	RB08	76011470	RESISTOR, CHIP, 1/20W 47 OHM J
	RB09	76011470	RESISTOR, CHIP, 1/20W 47 OHM J
	RB10	76011181	RESISTOR, CHIP, 1/20W 180 OHM J
	RB11	76011271	RESISTOR, CHIP, 1/20W 270 OHM J
	RB12	76011181	RESISTOR, CHIP, 1/20W 180 OHM J
	RB13	76011101	RESISTOR, CHIP, 1/20W 100 OHM J
	RB14	76011101	RESISTOR, CHIP, 1/20W 100 OHM J
	RB15	76011101	RESISTOR, CHIP, 1/20W 100 OHM J
	RB17	76011332	RESISTOR, CHIP, 1/20W 3.3K OHM J

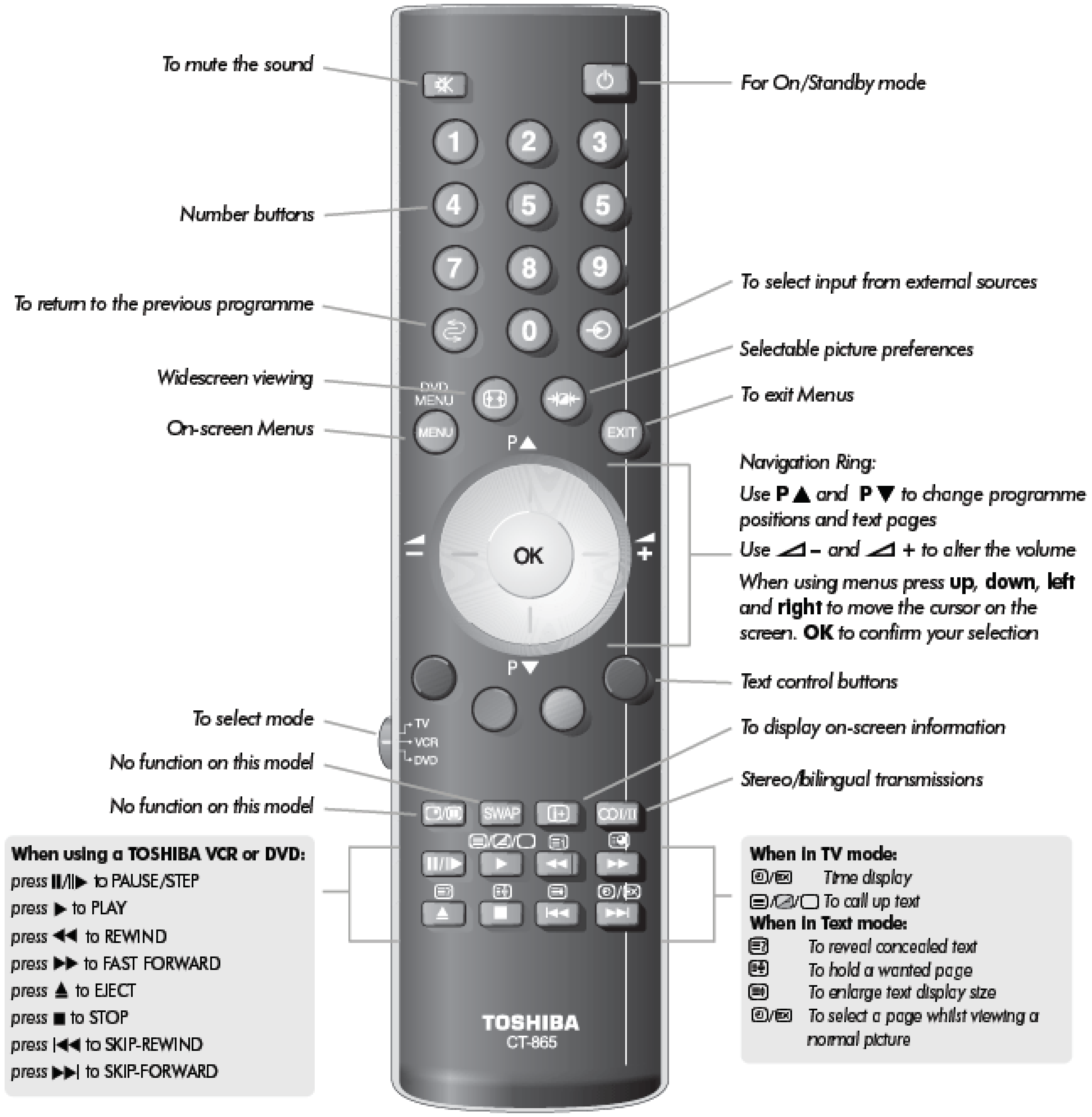
U02C KEY (PE0195)

	Location	Parts No.	Description
✱	U02C	75004440	PC BOARD ASSY, PE0195A3, KEY
	DA01	23362042	DIODE, ZENER, UDZS6.8B
	DA06	23362042	DIODE, ZENER, UDZS6.8B
	DA07	23362042	DIODE, ZENER, UDZS6.8B
	PJ42B	23713948	CONNECTOR, S6B-PH-K-S(LF)
	RA71	76011683	RESISTOR, CHIP, 1/20W 68K OHM J
	RA72	76011223	RESISTOR, CHIP, 1/20W 22K OHM J
	RA73	76011103	RESISTOR, CHIP, 1/20W 10K OHM J
	RA74	76000445	CHIP JUMPER, 1608TYPE
	RA77	76011103	RESISTOR, CHIP, 1/20W 10K OHM J
	RA78	76000445	CHIP JUMPER, 1608TYPE
	RA79	76000445	CHIP JUMPER, 1608TYPE
	SA01	23344505	SWITCH, PUSH 1C1P
	SA02	23344505	SWITCH, PUSH 1C1P
	SA03	23344505	SWITCH, PUSH 1C1P
	SA04	23344505	SWITCH, PUSH 1C1P
	SA05	23344505	SWITCH, PUSH 1C1P
	SA06	23344505	SWITCH, PUSH 1C1P
	SA07	23344505	SWITCH, PUSH 1C1P

FUNCTION AND OPERATION

The Remote Control

Simple at-a-glance reference of your remote control.


To mute the sound
Number buttons
To return to the previous programme
Widescreen viewing
On-screen Menus
To select mode
No function on this model
No function on this model
For On/Standby mode
To select input from external sources
Selectable picture preferences
To exit Menus
Navigation Ring:
Use P▲ and P▼ to change programme positions and text pages
Use ◿ – and ◿ + to alter the volume
When using menus press up, down, left and right to move the cursor on the screen. OK to confirm your selection
Text control buttons
To display on-screen information
Stereo/bilingual transmissions
1
2
3
4
5
5
7
8
9
0
DVD MENU
MENU
EXIT
P▲
OK
P▼
TV
VCR
DVD
SWAP
COI/II
TOSHIBA
CT-865

When using a TOSHIBA VCR or DVD:
press ▮▮/▮▶ to PAUSE/STEP
press ▶ to PLAY
press ◀◀ to REWIND
press ▶▶ to FAST FORWARD
press ▲ to EJECT
press ■ to STOP
press |◀◀ to SKIP-REWIND
press ▶▶| to SKIP-FORWARD

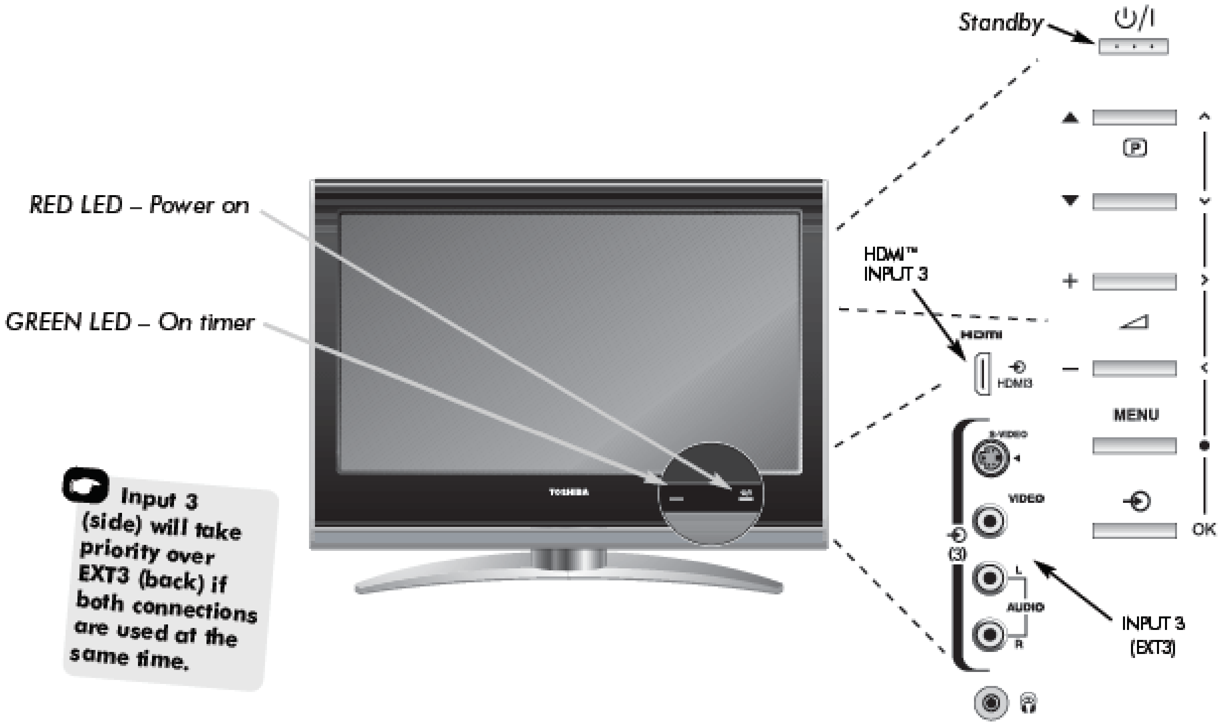
When in TV mode:
◷/⊠ Time display
⊟/◩/☐ To call up text
When in Text mode:
⊟ To reveal concealed text
⊞ To hold a wanted page
⊟ To enlarge text display size
◷/⊠ To select a page whilst viewing a normal picture

FUNCTION AND OPERATION

Control and Input Connection

A wide variety of external equipment can be connected to the input sockets on the side of the television.

Whilst all the necessary adjustments and controls for the television are made using the remote control, the buttons on the television may be used for some functions.


Standby
RED LED – Power on
GREEN LED – On timer
TOSHIBA
HDMI™
INPUT 3
HDMI
HDMI3
S-VIDEO
VIDEO
(3)
L
AUDIO
R
INPUT 3
(EXT3)
P
MENU
OK

Input 3 (side) will take priority over EXT3 (back) if both connections are used at the same time.

Switching On

If the RED LED is unlit check that the mains plug is connected to the power supply. If the picture does not appear press ⏻ on the remote control, it may take a few moments.

To put the television into Standby press ⏻ on the remote control. To view the television press ⏻ again. The picture may take a few seconds to appear.

To set up the television you will now need to use the on-screen menus. Press the **MENU** button on the remote control to see the menus.

The menu bar at the top of the screens will show five different topics shown in symbols. As each symbol is selected by pressing **left** or **right** on the navigation ring on the remote control, its respective options will appear below.

To use the options, press **down** on the navigation ring to move down through them and **OK**, **left** or **right** to select the required choice. Follow the on-screen instructions. The functions of each menu are described in detail throughout the manual.

Using the Control and Connection

To alter the volume press – ◿ +.

To alter the programme position press ▼ Ⓟ ▲.

Press **MENU** and ❮, ❯, ⌃ or ⌄ to control the sound and picture options.

Press **MENU** to finish.

Use the S-video **or** video sockets. When connecting sound equipment to **EXT3**, connect the audio output of the equipment to the phono sockets on the television.

To select the Input, press ⇥ until the display shows **EXT3**. The television will automatically sense the type of signal.

Please always refer to the owner's manual of the equipment to be connected for full details.

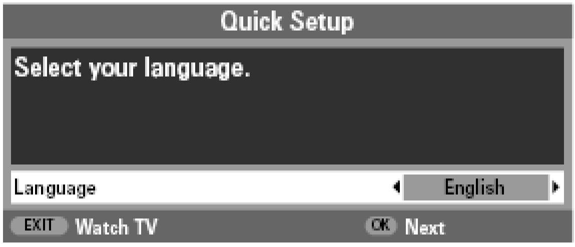
Please note: Inserting the headphone plug will mute the sound from all speakers.

FUNCTION AND OPERATION

Tuning the Television Using Quick Setup, Sorting Programme Position

Before switching on the television put your decoder and media recorder to **Standby** if they are connected. To set up the television use the buttons on the remote control.

1 Connect the television to the mains power. The **Quick Setup** screen will appear.



Quick Setup

Select your language.

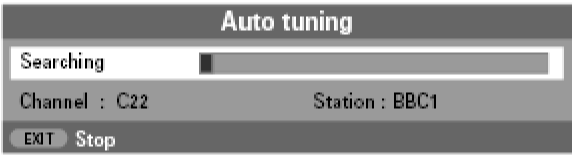
Language ◂ English ▸

EXIT Watch TV   OK Next

2 Using **left** or **right** select your **language**, then press **OK**.

3 Then press **left** or **right** to select your **country** and press **OK**.

4 To start **Auto tuning** press **OK**.



Auto tuning

Searching

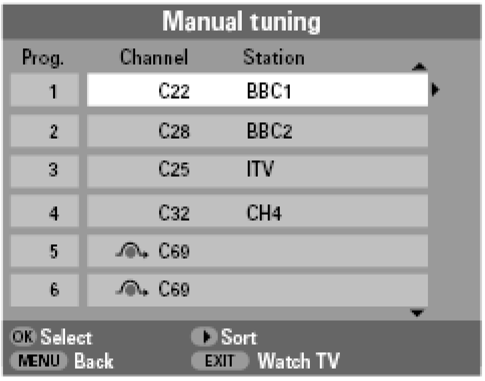
Channel : C22   Station : BBC1

EXIT Stop

5 The search will begin for all available stations. The slide bar will move along the line as the search progresses.

You must allow the television to complete the search.

When the search is complete the television will automatically select programme position 1. This may not be a clear picture or the signal may be weak, so the station order can be changed using **Manual tuning** which will appear on the screen.



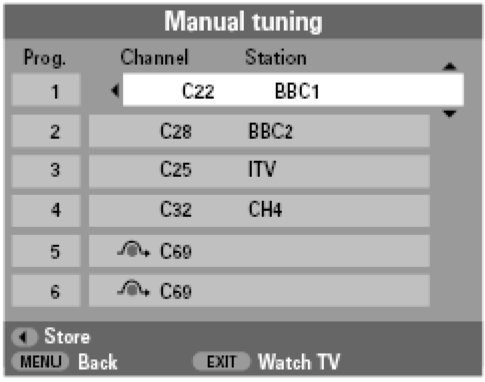
Manual tuning

Prog.	Channel	Station
1	C22	BBC1
2	C28	BBC2
3	C25	ITV
4	C32	CH4
5	C69	
6	C69	

OK Select   ▸ Sort
MENU Back   EXIT Watch TV

6 With the list of stations now showing use **up** or **down** to highlight the station you want to *move* and press **right**.

The selected station will be moved to the right of the screen.



Manual tuning

Prog.	Channel	Station
1	C22	BBC1
2	C28	BBC2
3	C25	ITV
4	C32	CH4
5	C69	
6	C69	

7 Use **up** or **down** to move through the list to your *preferred* position. As you do so the other stations will move to make room.

8 Press **right** to store your move.

Repeat as necessary, then press **EXIT**.

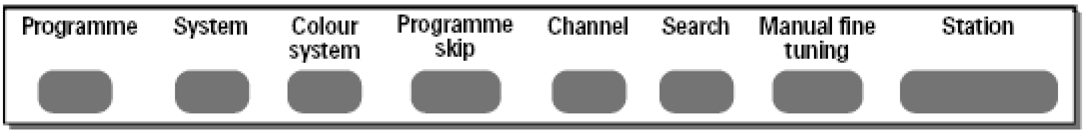
If the television cannot be connected to a media recorder/decoder with a SCART lead or if a station on another ***system*** is required, use **Manual tuning** to allocate a programme position.

FUNCTION AND OPERATION

Manual Tune

The television can be tuned-in manually using **Manual tuning.** For example: if the television cannot be connected to a media recorder/decoder with a SCART lead or to tune-in a station on another **System.**

Use **left** and **right** to move across the screen and select any of these Manual Tune options.



Programme : The number to be pressed on the remote control.

System : Specific to certain areas.

Colour system : Factory set to Auto, should only be changed if problems are experienced, i.e. NTSC input from external source.

Programme skip : means nothing has been stored or the facility to skip the channel is ON.

Channel : The channel number on which a station is being broadcast.

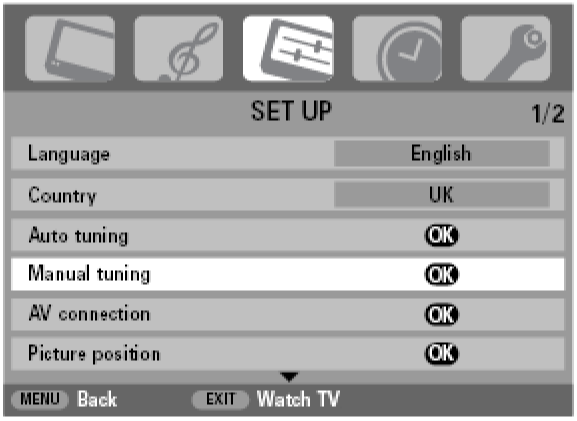
Search : Search up and down for a signal.

Manual fine tuning : Only used if interference/weak signal is experienced.

Station : Station identification. Use up or down and left or right to enter up to seven characters.

To allocate a programme position on the television for a decoder and media recorder: turn the decoder on, insert a pre-recorded film in the media recorder and press PLAY, then manually tune.

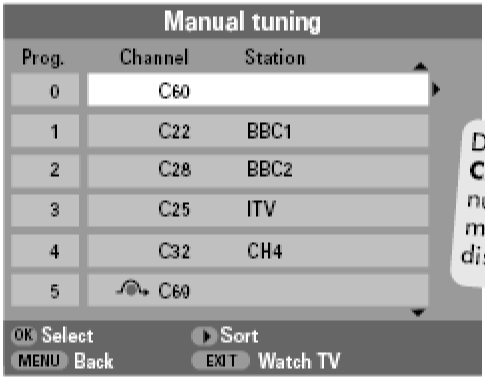
1. Press **MENU** and using **left** or **right** select the **SET UP** menu, with **down** highlight **Manual tuning**, press **OK** to select.


SET UP
1/2
Auto tuning OK
Manual tuning OK
AV connection OK
Picture position OK
MENU Back
EXIT Watch TV

Language English

Country UK

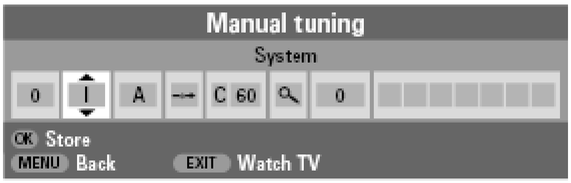
2. Use **up** or **down** to highlight the programme position required e.g. we suggest ***Prog. 0*** for a media recorder.


Manual tuning
OK Select
Sort
MENU Back
EXIT Watch TV

Prog.	Channel	Station
0	C60	
1	C22	BBC1
2	C28	BBC2
3	C25	ITV
4	C32	CH4
5	C60	

Different **Channel** numbers may be displayed

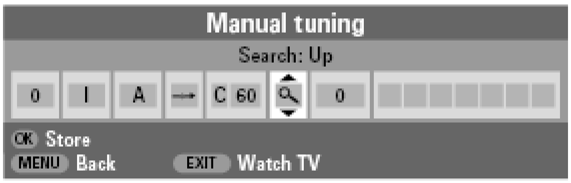
3. Press **OK** to select. If the programme is skipped, **Programme skip** must be removed before storing.


Manual tuning
System
0
I
A
C 60
0
OK Store
MENU Back
EXIT Watch TV

4. Press **right** to select **System** and use **up** or **down** to change if required.

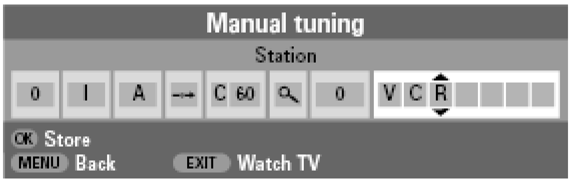
5. Then press **right** to select **Search**.

6. Press **up** or **down** to begin the search. The search symbol will flash.


Manual tuning
Search: Up
0
I
A
C 60
0
OK Store
MENU Back
EXIT Watch TV

7. Each signal will show on the television, if it is not your media recorder, press **up** or **down** again to restart the search.

8. When your media recorder signal is found, press **left** to move along to **Station**. With **up**, **down**, **left** and **right** put in the required characters, e.g. **VCR**.


Manual tuning
Station
0
I
A
C 60
0
V C R
OK Store
MENU Back
EXIT Watch TV

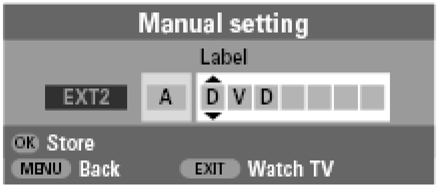
9. Press **OK** to store.

10. Repeat for each ***programme position*** you want to tune or, press **MENU** to return to the list of channels and select the next number to tune.

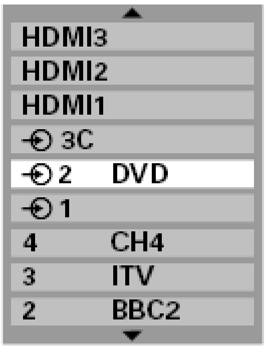
11. Press **EXIT** when you have finished.

12. To name external equipment, e.g. DVD on EXT2, press ⊕ to select **EXT2**, then select **Manual setting** from the **SET UP** menu.

13. Press **right** to select **Label** then using **up**, **down**, **left** and **right** put in the required characters.


Manual setting
Label
EXT2
A
D V D
OK Store
MENU Back
EXIT Watch TV

14. At any time by pressing **OK** a list will appear on screen showing all stored programmes and external equipment. Use **up** and **down** to highlight and **OK** to select.


HDMI3
HDMI2
HDMI1
⊕ 3C
⊕ 2 DVD
⊕ 1
4 CH4
3 ITV
2 BBC2

PLEASE NOTE This television has direct channel entry if the channel numbers are known. Select the **Manual tuning** screen in ***Step 3***. Enter the **Programme number**, the **System**, then the **Channel** number. Press **OK** to store.

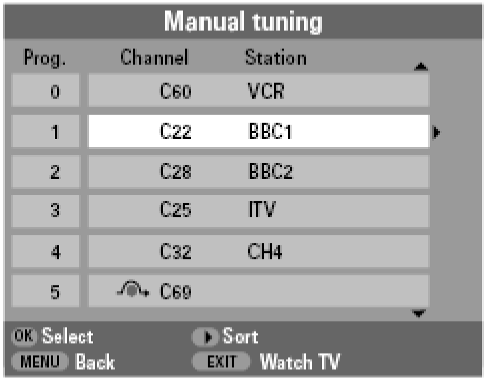
FUNCTION AND OPERATION

Programme Skip

Programme Skip

To prevent certain programmes from being viewed, the programme position can be skipped. The remote control must be removed as the channels will still be available using the number buttons. Programmes can then be watched as normal using the controls on the television, but the television will not show the skipped programme position.

1 Select **Manual tuning** from the **SET UP** menu.



Manual tuning

Prog.	Channel	Station
0	C60	VCR
1	C22	BBC1
2	C28	BBC2
3	C25	ITV
4	C32	CH4
5	↷ C69	

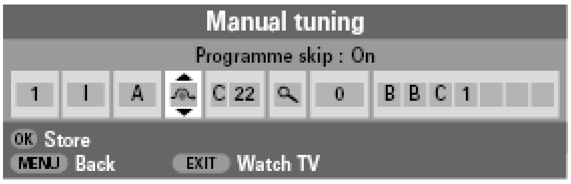
OK Select ▸ Sort
MENU Back EXIT Watch TV

2 Use **up** or **down** to highlight the programme position to be skipped and press **OK** to select.

3 Press **right** to select **Programme skip**.

4 Use **up** or **down** to turn **Programme skip** on. Press **OK**.

↷ on the screen indicates a skipped programme position.



Manual tuning

Programme skip : On

1 | I | A | ↷ | C 22 | 🔍 | 0 | B B C 1

OK Store
MENU Back EXIT Watch TV

5 Press **MENU** and repeat from ***Step* 2** or press **EXIT**.

Each programme position has to be *individually* selected. To turn **Programme skip** off, repeat the procedure for each position.

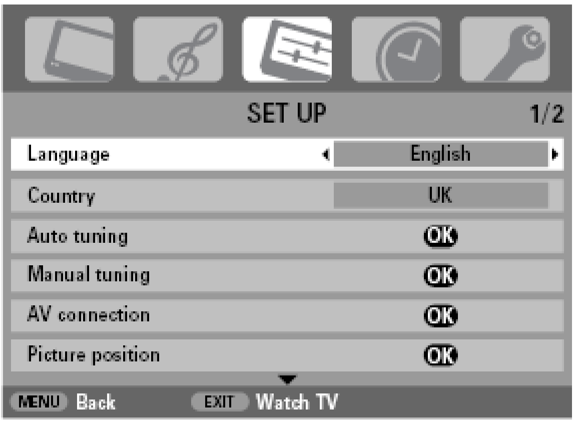
Skipped programme positions ***cannot*** be selected by **P▲** and **P ▼** or by the controls on the television, but ***can*** still be accessed by the number buttons on the remote control.

FUNCTION AND OPERATION

Auto Tune

Using Auto Tuning

1. To set up the television using **Auto tuning**, press **MENU** and use **left** or **right** to select the **SET UP** menu.



SET UP 1/2

Language ◂ English ▸

Country UK

Auto tuning OK

Manual tuning OK

AV connection OK

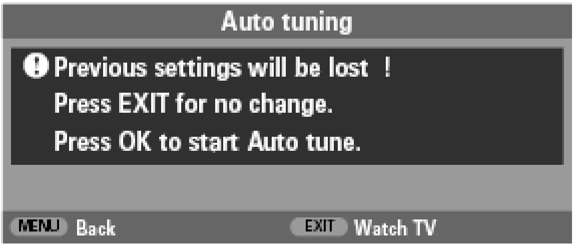
Picture position OK

MENU Back EXIT Watch TV

2. Press **down** to highlight **Language** and **left** or **right** to select.

3. Using **down** highlight **Country**, then **left** or **right** to select. The television will now tune the stations for your country.

4. Press **down** to highlight **Auto tuning**, then press **OK**.



Auto tuning

Previous settings will be lost !
Press EXIT for no change.
Press OK to start Auto tune.

MENU Back EXIT Watch TV

5. To start **Auto tuning** press **OK**.

You must allow the television to complete the search.

When the search is complete the television will automatically select programme position 1. This may not be a clear picture, so the station order can be changed using **Manual tuning**.

SPECIFICATION

Broadcast systems/channels

PAL-I	UHF	UK21-UK69
PAL-B/G	UHF VHF	E21-E69 E2-E12, S1-S41
SECAM-L	UHF VHF	F21-F69 F1-F10, B-Q
SECAM-D/K	UHF VHF	R21-R69 R1-R12

Video Input PAL, SECAM, NTSC 3.58/4.43

External connections

EXT1	Input	21-pin SCART	RGB, A/V
EXT2	Input	21-pin SCART	A/V, S-video
EXT3	Input	Phono jacks Phono jacks	Y, P_B/C_B, P_R/C_R A/V
EXT3	Input (Side)	Phono jack Phono jacks	Video, S-video Audio L + R
HDMI 1/2	Input	HDMI connector	
HDMI 3	Input (Side)	HDMI connector	
PC	Input	Mini D-sub 15-pin	Analog RGB signal
PC/HDMI1 Audio		Phono jacks	Audio L + R
Ouput to Active Super Woofer		Phono jack	

Stereo			Nicam
			2 carrier system
Visible Screen Size	Model	32	80cm
(approx.)		37	94cm
Display			16:9
Sound output (at 10% distortion)		Main	10W + 10W
Power consumption	Model	32	157W
as specified in		37	192W
EN60107-1 : 1997			
Standby (approx.)	Model	32	<1W
		37	<1W
Dimensions	Model	32	61cm (H) 80cm (W) 30cm (D)
(approx.)		37	69cm (H) 92cm (W) 30cm (D)
			(Height dimension includes foot stand)
Weight (approx.)	Model	32	19kg
		37	25kg
Headphone socket			3.5mm stereo
Accessories			Remote control
			2 batteries
			(AAA, IEC R03 1.5V)